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# Worldwide Report

TELECOMMUNICATIONS POLICY,  
RESEARCH AND DEVELOPMENT

No. 298



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23 December 1983

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# NATIONAL VIDEOTEX SYSTEM, RUN BY TELECOM, BY END OF 1984

Melbourne THE AGE in English 18 Oct 83 p 3

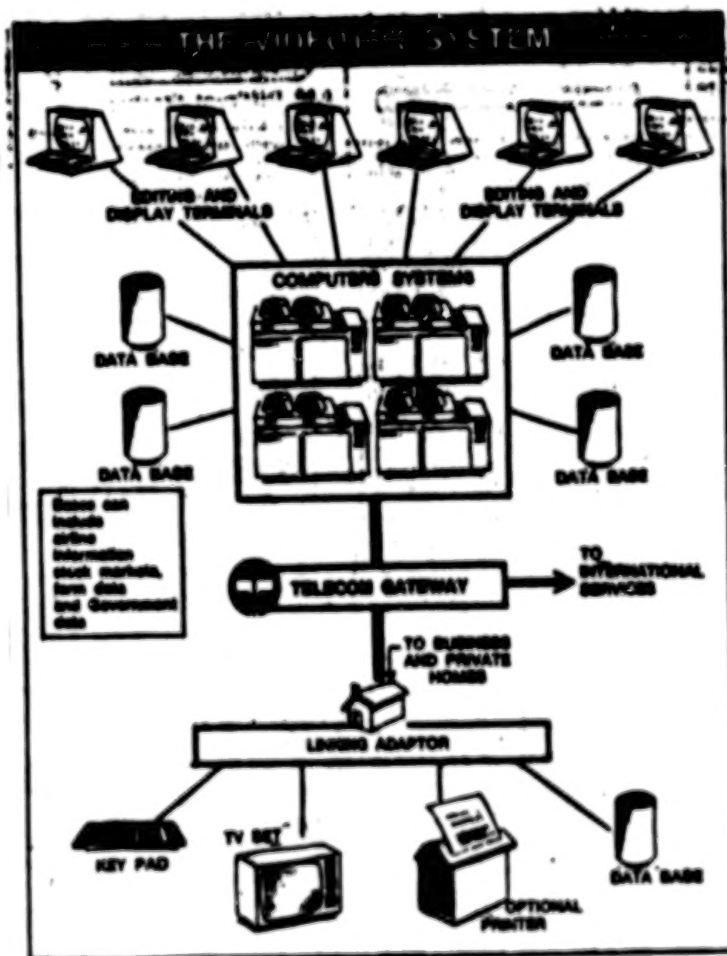
[Article by Margot O'Neill]

[Text]

**CANBERRA**, of south Australia a with have a 200000 public access videotex service, run by Telecom, by the end of 1984, the Minister for Communications, Mr Duffy,

announced yesterday.

Videotex, described by Mr Duffy as a "decentralised national library", will offer a wide range of information services to house-



holders and businessmen.

Basic information provided by Telecom will include news, weather, sport and government, and small business information. But Telecom's central system will link with other specialized services providing anything from advertising, financial, agricultural and medical information. It will also link with international services.

To use Videotex service, anyone with a television set and a telephone will need only to buy a linking adapter and a key-pad unit, for about \$300-\$350.

As well as providing information, the service will handle transactions such as ordering and selling goods, booking flights and hotel rooms and banking and will give specific answers to technical and other questions.

It will also be possible to use the service to send and receive messages such as birthday greetings.

Mr Duffy said Videotex would greatly improve the operations of specialists such as farmers, who would be able to draw on the knowledge of a wide range of sources to solve particular problems at a relatively low cost and at

the "touch of a button".

Telecom will operate as the national data base and also as a "gateway facility" to other privatized data bases if they are linked. The cost of a call to the national data base will be the same irrespective of distance.

Mr Luscombe said Telecom could not yet estimate how much the service would cost until tenders were chosen for the supply and installation of the equipment. But he said users would be charged on a combined basis per call to the data base and per page of text called up on the television screen.

Some companies had established, or expressed an interest in establishing, a Videotex service and that Telecom's national service did not preclude this. Private companies which chose to link into Telecom's service would have "full control over information they made available".

Telecom also was not going to manufacture or provide any of the equipment, thus the way was open for private enterprise. Mr Duffy said this would boost employment in a variety of fields outside Telecom.

CSO: 5500/7507

# TV TO ACCESS, NOT OWN, GOVERNMENT DOMESTIC SATELLITE

Sydney THE SYDNEY MORNING HERALD in English 19 Oct 83 p 2

[Article by Paul Kelly]

[Text]

CANBERRA. — The Minister for Communications, Mr Duffy, will propose to Federal Cabinet that the domestic satellite be 100 per cent Government-owned and that the three major television groups have access to the satellite for national networking.

The proposal is expected to have strong support in Caucus. This would mean a rejection of the Government's earlier decision to sell 49 per cent of Aussat — the Government-owned company set up by the previous Government to operate the system.

Mr Duffy's submission will go to Cabinet within a fortnight, and his basic position is expected to be supported by the Caucus Infrastructure Committee which is studying the options.

Both the Prime Minister, Mr Hawke, and the Treasurer, Mr Keating, initially favoured selling an interest in the satellite to television networks, but it now seems clear this will not be accepted by Caucus.

A key factor in the Cabinet decision is the promise made by the Prime Minister to the party in July that Caucus would consider the ownership question once again before Cabinet — which means that senior ministers cannot override the party room.

The two major options for ownership are that the satellite authority be a wholly owned subsidiary of

Telecom on a separate, Government-owned company with some Telecom representatives as directors.

Mr Duffy's approach is that if the networks have access to the satellite the issue of ownership would become less important to them.

After ownership, the next question is: Who will use the eight high-powered transponders on the satellite? The first four are allocated to the ABC for a remote broadcasting service to take television to 300,000 Australians who now have none.

The three media groups — John Fairfax, Mr Rupert Murdoch's News Ltd and Mr Kerry Packers' Publishing and Broadcasting — are likely to be treated on an equal basis. Access to the satellite will enable them to move to a form of national networking.

But one option is to protect the regional stations by ensuring that the networks' signals will be encoded so that they cannot be picked up in the areas serviced by the regionals.

An option for the fourth transponder is to use it for a pay television system and thereby broaden the ownership of the media. But there is concern within Caucus over this proposal and the result could be an inquiry into the desirability of pay television.

The Government's equity in the satellite is about \$75 million, which will be sold to Telecom if it becomes the controlling authority.

# ARMY TO USE COMPUTER SYSTEM TO TRAIN SIGNALS OPERATORS

Melbourne THE AGE in English 18 Oct 83 p 40

[Text] The Defence Department will install education-based computer systems to train signals operators in the Australian army.

The Poly learning support system microcomputers will be used initially in training establishments in Melbourne and Brisbane.

Under a \$400,000 contract, a total of 87 Polys and eight Proteus microcomputers will go into three training rooms in Victoria and one in Queensland. The hardware will be accompanied by support software and instructional materials, and system maintenance.

Progeni Australia and its New Zealand subsidiary, Polycorp — the software and systems house producing and marketing the product — combined under the CER NZ-Australia trade agreement to bid against foreign suppliers also seeking the signal training assignment. The contract involves Progeni supporting the product and the client for three years.

The Australian Government contract follows a major breakthrough in China, where 13 Poly classroom units will be installed

at the Huinan Coal-Mining Institute.

Following the signing of the Australian agreement, the joint general manager of Progeni Australia, Mr Norman Praed, said the Poly units — which will be produced in Lower Hutt, New Zealand, had undergone the most exhaustive testing and analysis by Defence Department officials.

Mr Praed said that under the initial Defence Department contract, students would be trained to use both teleprinter and the intelligent telegraph terminal systems employed by the Australian army.

About 25 machines, in two sets, would be installed in each classroom, with the machines being served from dual disk drives at the front of the classroom. The bottom disk drive will contain the course ware, and the top disk drive will have the course management software.

He believed the Progeni product had been chosen amid fierce tendering because the Poly units are of a self-contained design, ruggedly built, able to be linked together in network operation and

support authoring languages to develop course ware.

"We hope to see a lot more continuing business in this market, in particular relating to schools training, both in Federal Government departments, and at TAFE training college level," he said.

He said although Progeni's Poly learning support systems were developed and built in New Zealand, Progeni is considering manufacturing them in Australia.

Progeni was established in New Zealand in 1968 with a staff of four. It now has a staff of 150 and offices in Melbourne, Sydney, Los Angeles, Houston and throughout New Zealand.

The Poly system was developed in association with the New Zealand Education Department, with the funding provided through various Government bodies.

Progeni has had considerable success in a variety of applications — proprietary software, learning support systems, on-line systems, computer networks, control systems and microprocessor development, database systems, statistics, resource allocation, and system and program generation.

CSO: 5500/7507

# ANALYST VIEWS GOVERNMENT APPROACH TO COMPUTER INDUSTRY

Sydney THE AUSTRALIAN in English 11 Oct 83 p 22

[Article by Harry Douglas]

[Text]

THIS week I would like to look at the computer industry in the broad sense and whether the Government's approach to fostering a hardware industry and a software industry is along the correct lines.

This is particularly relevant after the results of the Technology Summit, which appeared to be inconclusive for the following reasons.

The conference members were drawn from industrialists, investors, scientists, union leaders and policy makers.

From their discussion, Mr Barry Jones' Department of Science and Technology will develop a preliminary strategy for national technology.

This draft will then be distributed for discussion prior to a follow-up conference where, it is hoped, a policy will be established.

This is a typical consensus style which produces results applicable to the strongest interest group, which in many cases would be union representatives.

While all would agree Australia has some tough decisions to make in regard to long-term restructuring, I doubt whether these will be achieved by consensus committees.

The free world has traditionally achieved far greater economic growth than that achieved by the communist committee style of government.

What we need is less red tape and fewer committees if we are to create the environment for

entrepreneurs to achieve their plans.

Senator Button showed a typical socialist initiative by recommending the formation of further Government/industry partnerships, similar to the Federal Government/BHP partnership which offered protection in return for investment.

Unfortunately, this is not a long-term solution and merely results in inefficient industry being propped up, with the costs being met by the whole community.

Paul Trainor, who has considerable experience in one of Australia's major high-technology companies, indicated there were serious problems with offsets.

To date, offsets have concentrated on subcontracting, sub-assembly and manufacture, but not at a level where they will generate export business.

The National Technology Summit ended with a strong attack by the Minister for Science and Technology on entrenched attitudes and complacencies of the unions, industry and academics.

We are continually being bombarded by politicians, academics and union leaders who have never experienced the real problems of trying to run a profitable business in the semi-socialist environment that we have in Australia.

In summary, the conference produced a series of bland

statements on a number of important issues on technological development, but failed to establish a new technology policy.

□ □ □

The only comment I wish to make on Mr Hawke's opening speech to the 10th Australian Computer Conference in Melbourne is that while he correctly stressed the urgent need for major investment in computer education and training, he did not address himself to the question of how Australia should compete on world markets with locally developed software and, possibly, hardware.

□ □ □

We are now a nation of non-competitive organisations.

As an example, the rural industry obtains drought relief and subsidies, whereas a true free-enterprise system would not require this and, even worse, it is the inefficient primary producer who obtains the greatest relief.

Tariff protection is provided to industries to bolster them.

In our own computer industry the popular approach from both the hardware side via bodies such as ACEMA (Australian Computer Equipment Manufacturers Association) and ACRA (Australian Computer Retailers Association) and on the software side through bodies such as the Software Industry Committee of the ACS (Australian Computer Society) and the ASHA (Australian Software Houses Association) is to spend too much time lobbying Government for hand-outs.

Particularly in software, there is a large market and it is possible to make profits on a low capital base.

Contrary to popular opinion, I do not believe that the present range of complicated and slow-to-act protection measures for the software industry are necessary.

What is Australia's future in hardware and, more importantly, in software?

It is popularly believed that we have missed the boat in hardware because of the high cost and time lag in setting up a suitable infrastructure for manufacture of the components and development of the necessary know-how.

It is also popularly believed that Australia is set for a burgeoning software industry because software requires less capital and a less sophisticated infrastructure.

But whatever kinds of policies Government establishes for high technology, there will always be some hardware entrepreneurs who will prosper in Australia, and some software entrepreneurs who will fail.

With the advent of the micro there is more and more "in-between-ware" - that is, the software is packaged with the hardware.

However, after three to four years the hardware/software combination will be obsolete, as well as any customised programs.

Many entrepreneurs will fail and many others will have their profits decimated if they don't need this fact of commercial life.

CSO: 5500/7507



BRIEFS

**SATELLITE EXPECTATIONS--CANBERRA--**Many people in outback Australia had unrealistic expectations about the capability of a domestic satellite because of overselling, the Minister for Communications, Mr Duffy, said yesterday. He said this particularly applied to outback telephone services, the school of the air and the Royal Flying Doctor Services. He said the Government had been careful not to compound false expectations that the satellite, due to be launched in 1985, would immediately solve all communications difficulties at no extra cost to those needing the service. Mr Duffy said that most outback areas would not get telephone services through the satellite but through a long-term program of new terrestrial links by Telecom. Mr Duffy's comments follow an intense campaign by the Australian Telecommunications Employees Association that claimed the Government satellite authority, Aussat, had given people in the outback false expectations. It is believed the Government has been concerned that rural politicians have fuelled false hopes about the satellite to the extent that some people believed the School of the Air could become beamed on video to homesteads. Mr Duffy yesterday emphasised the enormous cost involved in improving outback communications services and said that earth dishes used to receive the ABC outback broadcasting services could not be used for a satellite telephone service. [Margot O'Neill] [Text] [Melbourne THE AGE in English 13 Oct 83 p 19]

**TELECOM AS COMMON CARRIER--CANBERRA--**The Federal Government has endorsed officially Telecom's monopoly as the national telecommunications common carrier and rejected the main thrust of the Davidson Inquiry report which had been commissioned by the former government. The Minister for Communications, Mr Duffy, said yesterday the Davidson Inquiry, which recommended Telecom give up significant parts of its charter to private enterprise, had been slanted deliberately towards a wider involvement of the private sector and had not taken into account the effects such a move would have had on the public. The Government's announcement is in line with the Labor Party platform and had been signalled already by Mr Duffy, who is promoting Telecom to administer the Commonwealth's satellite authority, Aussat. Telecom also recently was given administration of a national videotex service. "This Government's policy is to ensure that the best possible services are available to the Australian public, and that universal access is provided to the national telecommunications system at a price all can afford," Mr Duffy said. He said it was worth noting that Telecom, at the time the Davidson Inquiry was established, was already taking a number of decisions and initiating actions which ultimately proved to

be consistent with many of the recommendations of the Davidson report.  
[Margot O'Neill] [Text] [Melbourne THE AGE in English 21 Oct 83 p 15]

DIGITAL EQUIPMENT FOR TELECOM--TELECOM Australia has placed a \$1 million order with Britain's Marconi Communication Systems and GEC Australia for advanced digital data network equipment. The contracts are part of orders which will amount to an estimated \$50 million over the next five years for equipment to expand Australia's telephone network for transmitting computerised information. Digital data services will be extended from the current intercity services to include regional centre services from 1984. The present 1000 link terminations are expected to grow to around 8000 by June 1984. Full manufacture of the digital data network equipment will eventually be transferred to Australia. A new factory at GEC's industrial estate in Sydney will be fitted out with production and test facilities similar to Marconi's plan in south-east England. Telecom Australia introduced its DDN (Digital Data Network), a public-leased line data service, at the end of 1982. The new equipment will enable business and government users of the data network to transmit through existing cable links with local telephone exchanges. [Text] [Sydney THE AUSTRALIAN in English 13 Oct 83 p 13]

CSO: 5500/7507

# JAPANESE MATHEMATICAL MODEL FOR GEOSTATIONARY ORBIT MANAGEMENT

Paris AFP SCIENCES in French 3 Nov 83 pp 10-11

[Text] Space on the geostationary orbit, on which the number of telecommunications satellites is constantly increasing, is becoming so scarce that Japanese researchers have just formulated a mathematical model for maintaining technical management and avoiding interference, overlappings and communications jamming which will inevitably occur there.

In fact, as of 31 December 1982, 220 satellites, most of them telecommunications-type, were on the geostationary orbit or were in the planning stages for the years ahead.

For several years considered in United Nations circles as part of mankind's common heritage, this orbit located 36,000 km from earth was already posing a legal problem. Numerous technical problems will be added to it if we do not watch out.

Experts knew this but none had so far given much thought to "managing" the geostationary orbit with data processing. This points up the complete attention afforded the paper presented by Messrs Tokuro Muratani, Toshio Mizuno and Ito of the Kokusai Denshin Denwa Company, Ltd., of Tokyo, on 31 October in Geneva during the 4th scientific forum on telecommunications.

They propose to the international community nothing more nor less than working out utilization of the geostationary orbit by all countries not only from the standpoint of their satellite control but also in terms of their capabilities, coverage area of each of their antennas, etc.

The proposal by the three Japanese researchers may be summed up as follows: the geostationary orbit belongs to all countries, rich or poor, but the latter have little opportunity for making use of it any time soon owing to their lack of know-how.

Let's plan therefore on the utilization of space on this orbit for the next 10 or 20 years, for example from the standpoint of their technical capabilities (power, bandwidths used, width of beams which their antennas will be sending toward earth and according to the area of the globe covered). Let's also plan to review plans drawn up based on our model every 3 to 5 years.

This will allow us to guarantee access to this orbit to all, otherwise it will shortly be filled up if we continue the "first come, first served" policy.

The Japanese proposal has all the more opportunities for being heard if it satisfies in advance the many concerns of developing countries and ensures a fair sharing of good space. There must be a satellite above the Atlantic, Pacific and Indian Oceans to ensure international communications. Based on areas to be covered, a position appropriate for covering Europe, Japan, Canada, Africa, the Middle East or Indonesia must be available. Without this good space we come up against tough, expensive technical problems. The computer can bring together all these data in an effort to satisfy everyone.

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CSO: 5500/2538

## BRIEFS

JAPANESE TELECOMMUNICATIONS SATELLITE--In order to put an end to its dependence on the United States in this area and to get itself into the international aerospace market, Japan plans to build a major communications satellite, the Japanese space agency NASDA recently announced. According to its director, Mr Shigemichi Sonoyama, Japan in fact prefers to launch its own satellite program rather than have to buy them abroad. Therefore Japanese experts have begun research, from conception to production, with a view toward building a 2-ton communications satellite, already christened ETS-VI. It will reportedly be ready to be placed in orbit by 1992 with help from a propulsion rocket under development. In the area of weather satellites, Mr Sonoyama mentioned, Japan depends in very large measure for its HIMAWARI satellites on American technology, which prevents Japan from selling its technical know-how to third countries. [Text] [Paris AFP SCIENCES in French 3 Nov 83 p 19] 9436

CSO: 5500/2538

## CHIEF OF USSR-BUILT SATELLITE STATION DESCRIBES FUNCTIONS

Vientiane HENG NGAN in Lao 16-31 Dec 83 pp 8,9

[Article by Sinakkon: "The One in Satellites"]

[Text] The Inter-Sputnik satellite ground station whose construction and installation was aided by the Soviet government as a gift to the LPDR is a symbol confirming the great Lao-Soviet friendship and solidarity. It is a primary result of the postal expansion in the first 5-year plan of the government. During the period of advancing to socialism, which is the period of preparing the material and technical base, it visibly confirms the implementation of the plenum of the LPRP Central Committee which said that "we must absolutely aim at Socialism in order to construct Socialism."

One day I had a chance to meet Comrade Phouthong Sengakhom, chief of the board of directors of the Dok Boua satellite ground station.

Comrade Phouthong Sengakhom was born in Louang Prabang Province. After the completed elementary schooling in his home town in 1959, he joined his brother in the revolution and went to secondary and upper secondary levels in Sam Neua. After that he devoted his energy and intelligence to participating in the revolution until 1966. Later, in Kiev, USSR, he studied aviation control. After he graduated in 1978 he was assigned as chief for the educational section in army aviation in Wat Tai Airport, Vientiane Capital. In 1981 Comrade Phouthong was transferred to the Ministry of Posts and Telecommunications as committee chief responsible for the construction of the satellite ground station. In the same year he was assigned to be chief of the board of directors of this station.

Since being assigned as chief of the board of directors, Comrade Phouthong has always been thorough, stable, and never hesitant or uncertain. He has been determinedly carrying out his specialized task. He not only guides and leads the political ideology of the station organization but also tries to carry out the actual work as quickly as possible. He also attentively teaches the people in the station.

At the same time he also continuously studies and collects data on satellite communications.



Now the Dok Boua satellite ground station is being used in politics, economics, socioculture and specialized tasks to push forward production necessary for expanding in rhythm with the expansion of Lao society. This gradually, closely, and directly links the LPDR telecommunications system with other socialist countries.

Comrade Phouthong briefly explained the technical aspects of the satellite telecommunications system, which is divided into two parts. The first involves receiving and transmitting signals directly from the satellite, and the other involves receiving and transmitting signals that are received from the satellite to Vientiane. Each section consists of receivers, transmitters, and antennas. The antenna for receiving and transmitting from the satellite has a dish shape 12 meters in diameter. The antenna for receiving and transmitting to Vientiane is 108 meters high, and the one for receiving and transmitting from Vientiane back to the satellite is 78 meters high. When this station is at its full capacity it will have 12 telephone channels, 144 channels which we can use for telegram, teletype or other telecommunications channels, and 2 color TV channels. It can make contact with all countries around the world via any country that has the Inter-Sputnik satellite system. In fact, up to now we have studied and experimented in telephoning directly to Moscow by one channel, receiving calls from Moscow by one channel, and one channel is being used for telephone calls to Hanoi.

At the end Comrade Phouthong added that "our cadres do not yet have concrete knowledge in this field. Since the first day of construction they have been both working and alternately doing specialized tasks assisted by Soviet experts. They have also been highly alert and have tried to take advantage of the opportunity to learn from the Soviet experts in order to continuously make this station successful. We have organized specialized task training right on location to teach about receivers, transmitters, telephones, antennas, the cooling system, and foreign regions, which has been carried out since June 1982 and will be completed in December. After having completed examinations in each subject, for the 1983 work plan Comrade Phouthong told us that a course on repair techniques will be opened with the assistance of Soviet experts in order to pass on to us the valuable lessons they have experienced.

In order to be worthy of the trust of the higher echelons, Comrade Phouthong added that we still have to struggle and ensure all difficulties to turn over a new leaf in order to fulfill our honored duty in serving the country and the people as assigned by the party and our government.

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CSO: 5500/4350

## THAILAND

### CONTROVERSY OVER TV SIGNAL INTERFERENCE CONTINUES

#### Ideological Subversion Feared

Bangkok MATICHON in Thai 30 Sep 83 pp 1,16

[Article: "Russia Beams TV Signals That Interfere With Stations In the Northeast"]

[Text] The Soviet Union, Laos and Malaysia are transmitting television signals that are interfering with Thai programs. The people in several provinces in the northeast have been greatly bothered. When they are watching a good program, foreign pictures and voices interfere with their reception. The Science Subcommittee has met to discuss the matter. There is fear of ideological subversion.

On 29 September, Mr Prathuong Khamprakop, an MP from Nakhon Sawan Province, who belongs to the Social Action Party and who is the chairman of the Science, Technology and Energy Subcommittee, and Mr Suwit Khunkitti, an MP from Khon Kaen who belongs to the same party, made a joint statement in parliament. Mr Prathuong said that that morning, the subcommittee had met to discuss a matter brought up by Mr Suwit concerning foreign television signals interfering with television reception in the border area in northeastern Thailand.

Mr Prathuong said that these foreign television signals are from Malaysia and the Soviet Union. In particular, the Soviet Union is supporting Laos by transmitting programs from the Soviet Union using an artificial satellite to transmit them to Laos. This is interfering with Thai television programs in several northeastern provinces. An important reason for this is that the transmitting efficiency of the Thai television stations is still greatly inferior.

Mr Suwit said that the foreign television signals have been interfering with television reception in the Thai border area for a year now. While watching television programs, there is both audio and visual interference and this is becoming worse every day. In particular, the programs broadcast from Laos are quite clear from 1830 to 2000 hours, which is the time of day when no television programs are broadcast in Thailand.



"I went and made inquiries at the Region 1 Public Relations Center in Khon Kaen Province, which is the Channel 4 broadcasting station. This is the station whose broadcasts are being disturbed. The officials said that the Malaysian signals are of the RTM type, which is the same system as that used by the Channel 4 television station, that is, it is a 625-band system. The reason why foreign signals cause interference is that the transmitters used by Channel 4 are old and they are not very efficient," said Mr Suwit. He also brought a video tape of interfering foreign programs transmitted by both the Soviet Union and Malaysia and showed it to reporters.

A reporter reported that the program that he viewed was a Soviet television program. There was a male announcer. The picture was not clear, with lines appearing on the screen, and the broadcast was in Russian. The program presented various stories. From the picture, it seemed to concern raising children in a hygienic way. In one part, you could see how they massaged the children's necks. As for the Malaysian program, it was a news broadcast in Malay.

Along with this, on the video tape that Mr Suwit showed to the reporters, a female official of Television Channel 4 in Khon Kaen made a statement on 22 September to explain this matter to the MPs and to the people in the northeast.

She said that it was true, as stated in news reports, that transmitters in foreign countries had been transmitting signals that interfered with both the picture and sound transmission of Channel 4 in Khon Kaen. This is true because the broadcasting equipment used by Channel 4 is of poor quality. The equipment has a transmitting capacity of 10 kilowatts but the actual capacity is only 3 kilowatts.

That official also said that television reception in Udorn Thani, Nong Khai, Roi Et, Sakon Nakhon, Nakhon Phanom and Chaiyaphum, which all receive Channel 4, has been bothered by foreign RTM signal interference for a year now. This did not start just recently. This has made it impossible for the people to get good reception. To solve this problem, the broadcasting equipment should be replaced. Otherwise, public relations activities and psychological operations will suffer. The people whom [she] is most worried about are the people who live in the border areas, such as in Nong Khai, Nakhon Phanom, Muk Da Han and Ubon Ratchathani. Because at present, Laos, with the help of the Soviet Union, is installing a television transmitter-receiver and a 150-kilowatt radio transmitter.

This official also said that to transmit television pictures, Laos uses a "sekham" system while Thailand uses a "phal" system. But because Thailand's television receivers are new receivers, they can also pick up Lao broadcasts. Thus, the people in the northeast are receiving television signals from Laos with some of the programs broadcast direct from the Soviet Union to stations in Laos using an artificial satellite. Some of the programs are in Lao and some are in Russian.

Mr Suwit added that the interfering signals transmitted from Malaysia are not cause for great concern. But he is very concerned about the interference from Laos and the Soviet Union since these two countries have different forms of administration than Thailand. They may be able to carry on subversive activities concerning communist ideology in order to destroy Thailand's security.

"I once talked with the Thai ambassador in Vientiane and was told that the Lao people like to watch Thai television programs, such as folk plays. Thailand should improve its transmission capabilities so that Laos can receive our broadcasts," said Mr Suwit.

Mr Prathuang said that at the next meeting, he will ask the people responsible or the Radio and Television Broadcasting Administrative Committee to come talk about this matter. But 30 September is the day that he will go to pick up his monthly salary at parliament. He will sign a petition and submit it to the prime minister to allow television programs to be broadcast from 1800 to 2000 hours daily. The same programs would be broadcast by all the channels, and they would be informative programs that would benefit the people.

#### Security Aspects Noted

Bangkok DAO SIAM in Thai 19 Sep 83 pp 1, 2

[Article: "Television Interference From Laos"]

[Text] Mr Suwit Khunkitti, a social Action Party MP from Khon Kaen Province, revealed that he has sent an urgent letter to the minister attached to the Office of the Prime Minister, Police Lieutenant Chan Manutham, asking that quick action be taken to improve television transmission and to expand the broadcasting area in the northeast in order to solve the problems being experienced by the people and prevent the enemy from destroying the nation. At present, there is much interference in the northeast. He said that the Soviet Union is supporting Laos fully. And at present, they have begun using radio and television stations to subvert five provinces in the northeast. He has asked the government to solve this problem quickly.

Mr Suwit Khunkitti, an MP from Khon Kaen and a member of the Social Action Party, talked with a DAO SIAM reporter on the afternoon of 18 September. He said he has submitted an urgent petition to Police Lieutenant Chan Manutham, the minister attached to the Office of the Prime Minister, in order to ask the government to quickly improve television transmission and expand the broadcasting area in the localities of the Public Relations Department in the northeast in order to solve the problems being experienced by the people and defend against enemy subversion.

Mr Suwit told the reporter that at present it is generally accepted that communications technology is a necessary and important tool for social and national development and growth. Thus, television is considered to

be one communications tool that can be used either to build or destroy national security in a very efficient way. For this reason, he and most other SAP MPs from the northeast feel very worried since this region shares a border with Laos, and they are very worried about their using television to destroy national security, as is now happening in the northeast.

The MP from Khon Kaen, Region 1, also said that what is important is that at present television broadcasts are being received from Laos. The Soviet Union has provided support by building television stations in Laos. Programs are being broadcast in both Lao and Russian, said this young MP.

Mr Suwit said that at present, television signals from Malaysia, RTM Channel 4, are interfering with the local television broadcasts of the Television Broadcasting Station of Thailand at the Region 1 Public Relations Center, particularly [the broadcasts] of Channel 4 in Khon Kaen Province, which has broadcasting stations in various provinces such as Udorn Thani, Roi Et and Sakon Nakhon. Concerning broadcasts during the past year, Channel 4's television signals have disappeared at times. The people have picked up foreign languages on their television sets. This has occurred mainly in the northeast. This has led to problems, with program reception not being very good. This has greatly harmed the public relations activities and psychological operations of the state, said Mr Suwit.

The MP from Khon Kaen told SIAM MAI that concerning national security, at present he is very worried about subversion in several provinces in the northeast. And the people cannot receive the news broadcasts clearly because of interference by the enemy. In particular, Laos is presently receiving more communications support from the Soviet Union. At present, Laos is quickly building a 150-kilowatt radio transmitting station. If Laos develops its communications system in accord with the targets, the threat to national security in this region will be just as alarming as that in the south, said the MP from Khon Kaen, Region 1.

Mr Suwit also told the reporter that "however, in the south, at least Malaysia is a fellow member of ASEAN, and its administrative system is similar to Thailand's. But Laos and Kampuchea are under the influence of the communists. I am very worried about enemy subversion in the northeast."

In conclusion, Mr Suwit Khunkitti told the DAO SIAM reporter that he and other SAP MPs from the northeast had submitted an urgent petition to Police Lieutenant Chan Manutham, the minister attached to the Office of the Prime Minister. In this, they discussed this problem and asked that importance be attached to developing the state's communications tools in the northeast in order to make them more efficient as quickly as possible. This should be done in order to prevent any damage to national security in the northeast.

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CSO: 5500/4352

## REPORT ON DIRECT DIAL PHONE SERVICE TO EUROPE

Sofia IMPULS in Bulgarian 8 Nov 83 p 3

[Article: "Codes for Direct Dialing from the Capital of Telephone Numbers in 112 Cities in 12 Countries"]

[Text] In addition to the direct telephone connections with the USSR, the GDR, Poland and Czechoslovakia in use heretofore, residents of the capital can now dial directly another 112 cities in 12 countries in Europe.

This can be done from any telephone station in Sofia. For example, if you want to place a call with a subscriber in the city of Liverpool, England, you have only to dial in sequence 004451 before his telephone number. The first four digits are the dialing code for England. The last two are that of the city of Liverpool. Direct international dialing is two-way, i.e. subscribers to our national dial telephone system can be dialed from telephone stations in the cities indicated below. The charge for dial calls from our country depends on the distance to the respective countries in Europe, which are divided into zones with the cost of calls ranging from 1.40 to 2.50 leva per minute. Additional information regarding telephone codes can be obtained at any time from telephone number 144.

Since the International Dial Telephone Exchange in Prague is a through switching exchange through which direct-connection telephone channels pass, persons wishing to call subscribers in Czechoslovakia may use the procedure with which they have heretofore been familiar, as well as the codes indicated in the table.

1. Austria 0043

Graz 316  
Innsbruck 5222  
Kitzbuehel 5356  
Salzburg 6222  
Seefeld 5212  
Klagenfurt 4222  
Vienna 222

2. Belgium 0032

Brussels 2  
Charleroi 71  
Vise 41  
Zeebrugge 50

3. Denmark 0045

Copenhagen 1 for central part, 2 for surroundings  
Kolding 5  
Odense 9  
Viborg 6

4. Spain 0034

Alicante 65  
Barcelona 3  
Cordova 57  
Granada 58  
La Coruna 81  
Las Palmas 28  
Madrid 1  
Malaga 52  
Sevilla 54  
Toledo 25  
Valencia 6  
Valladolid 83  
Zaragoza 76  
Fes 6  
Rabat 7

5. France 0033

Bordeaux 56  
Cannes 93  
Dijon 80  
Calais 21  
Havre 35  
Marseilles 91  
Nice 93  
Lyon 78  
Montpellier 67  
Strasbourg 83  
Paris 1

6. Italy 0039

Foggia 881  
Genoa 10

Leghorn 586  
Mantua 376  
Merano 473  
Messina 90  
Milan 2  
Modena 59  
Monza 39  
Naples 81  
Padua 49  
Palermo 91  
Pisa 50  
Reggio Emilia 522  
Verona 45  
Vicenza 444  
San Rmo 184  
Rome 6  
Taranto 99  
Tivoli 774  
Turin 11  
Trieste 40  
Venice 41

7. Norway 0047

Oslo 2  
Tonsberg 33  
Bergen 5  
Drammen 3

8. Holland 0031

Rotterdam 10  
Amsterdam 20  
Bilthoven 30  
Eindhoven 40  
Groningen 50  
Haarlem 23  
Tilburg 13

9. England 0044

Aberdeen 224  
Belfast 232  
Birmingham 21  
Brighton 273  
Bristol 272  
Cambridge 223  
Cardiff 222  
Edinburgh 31  
Glasgow 41  
Ipswich 473

Lancaster 524  
Leeds 532  
Liverpool 51  
London 1  
Manchester 61  
Nottingham 602  
Oxford 865  
Plymouth 752  
Preston 772  
Sheffield 742  
Southampton 703  
Winchester 962  
Wolverhampton 902

10. Sweden 0040

Stockholm 8  
Goteborg 31  
Kalmar 480  
Malmo 40  
Norkoping 11  
Lund 46

11. Switzerland 0041

Baden 56  
Berne 31  
Geneva 22  
Lugano 91  
Saint Moritz 82  
Zuerich 1  
Lausanne 21

12. Czechoslovakia 0012

Bratislava 7  
Brno 5  
Karlovy Vary 17  
Liberec 48  
Ostrava 69  
Pilsen 19  
Prague 2  
Most 35  
Zilina 89  
Kosice 95

13. FRG 0049

Augsburg 821  
Bad Kissingen 971  
West Berlin 30

Bochum 234  
Bonn 228  
Bremen 421  
Dortmund 231  
Duesseldorf 211  
Duisburg 203  
Essen 201  
Frankfurt 611  
Hamburg 40  
Hannover 511  
Cologne 221  
Mannheim 621  
Munich 89  
Nuremberg 911  
Stuttgart 711

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CSO: 5500/3007



ORDINANCE ON REGISTRATION, USE, FEES FOR RADIO, TV RECEIVERS

Sofia DURZHAVEN VESTNIK in Bulgarian 11 Nov 83 pp 1123-1125

[Ordinance No 8 of the Ministry of Communications Governing the Subscribing of Radios, Television Sets and Amplifiers]

[Text] Section I: General Provisions

Article 1. This ordinance establishes the procedure and conditions for the registration, subscribing, use and closing down of subscriber accounts for radios, televisions and amplifiers for personal and public needs.

Article 2. In the sense of this ordinance:

1. Radios include radio receivers, radio devices, loudspeakers, radio telephones and radio sets (transmitters and receivers);
2. Television sets are television receivers;
3. Amplifiers are devices which amplify the signal received over a wire: sound equipment, simulcast equipment and so forth.

Article 3. Listening to radio broadcasts and viewing of television programs are free.

Article 4. Institutions and organizations can set up and enlarge public-use radio relay networks at their own expense after written permission from the communications bodies in observing the technical rules for the equipment and building of radio relay networks and centers. Newly built networks, after their acceptance by a commission involving representatives from the communications bodies, become the fixed capital of the Ministry of Communications.

Section II: Registration, Subscription and Use

Article 5. (1) Institutions, organizations and citizens are obliged to register the devices used by them according to Article 2 for private and public needs at the corresponding post, telegraph and telephone office according to the place of use.

(2) Registration under Paragraph 1 is carried out within 1 month from the acquisition of the device, with the exception of loudspeakers which are registered when they are connected to the radio relay network of the Ministry of Communications. If the date is missed, registration is done officially, with the user paying a penalty.

(3) Portable radio and TV receivers are not subjected to registration. Portable receivers are those powered by batteries or a combination of battery and directly from the electric system. Receivers installed in vehicles and those powered only by the electric system are not considered portable.

Article 6. (1) For the registered equipment, the post, telegraph and telephone offices issue receipts or subscriber booklets in which the name and address of the subscriber, the type, model, factory number and purpose (for personal or public use) are entered. The issued documents are kept until the account is closed.

(2) In the registering of a radio or amplifier connected to the radio relay network of the Ministry of Communications, a license is issued to the subscriber.

Article 7. Copies of lost receipts, subscriber booklets and licenses are issued by the appropriate post, telegraph and telephone office.

Article 8. (1) The installing and connecting of loudspeakers are carried out upon written request from institutions, organizations and citizens from the enterprises of the Ministry of Communications if the technical possibilities exist. The cost of the invested materials and labor is at the expense of the subscriber.

(2) The use of a multiprogram loudspeaker connected to a telephone is permitted only in the name of the telephone subscriber.

(3) Any extension of a subscriber wire from a completed loudspeaker to another loudspeaker is considered as a new wire and a fee is paid. The communications bodies can make an extension of a subscriber wire for the needs of another person without the permission of the owner of the completed line.

Article 9. (1) A change of the subscriber's name (due to marriage, divorce and so forth) is made upon his written request to the appropriate post, telegraph and telephone office and upon submission of the document for registering the device.

(2) With a change of the place of use of the equipment, the subscriber is obliged within a 1-month period to inform the post, telegraph and telephone office of the new address of the place of use and this is recorded in the registration documents.

(3) With a change of user, upon written request of the old subscriber to the appropriate post, telegraph and telephone office, his account is closed down. The new user is obliged within a 1-month period to register the device in his name.

(4) With a change in the purpose of the device's use from private to public or vice versa, the subscriber within a 1-month period is obliged to submit a written request to the post, telegraph and telephone office at the place of use for making the change.

(5) With the death of the subscriber, the new user within a 3-month period is obliged to submit a written request to the appropriate post, telegraph and telephone office for closing the account of the deceased subscriber and opening a new account in the new name.

Article 10. (1) It is not permitted to put a line across a street or square for a private public address system. It is not permitted to install speakers which can be heard on the street or square.

(2) It is not permitted to connect loudspeakers for public use to a device for personal use. It is permitted to connect loudspeakers for personal use to equipment for public use.

Article 11. The communications bodies look for unregistered equipment by checking the houses of citizens, the enterprises, institutions and organizations. Officials entrusted with making the checks are given official cards signed by the chief of the corresponding post, telegraph and telephone office and by the chief of the corresponding administration of the Ministry of Internal Affairs. Citizens, enterprises, institutions and organizations are obliged to permit checks by the communications inspection bodies from 0700 to 2200 hours.

### Section III: Closing Subscriber Accounts

Article 12. (1) The subscriber account for a radio, television set or amplifier is closed in the following instances:

1. Officially by the communications bodies:

a) When the subscriber has not paid the fee for the last calendar year. Prior to closing the account, the subscriber is warned in writing that an extension in the payment time is permitted only with natural disasters or other exceptional instances according to Article 48 of the law governing communications;

b) With the death of the subscriber, if the new user has not met the obligations under Article 9, Paragraph 5, or there is no new user;

2. Upon the written request of the subscriber and the submission of a document showing the last payment of the fee which was made.

(2) The closed account is kept at the appropriate post, telegraph and telephone office for a year.

(3) After the closing of the account, the communications bodies seal the device so it cannot be used.

#### Section IV: A Local Radio Program and Public Address Systems

Article 13. (1) Radio relay centers broadcast the programs of Bulgarian Radio and also transmit their own local program during hours stipulated by the Main Directorate for Regional Programs under the Television and Radio Committee.

(2) The Television and Radio Committee provide procedural leadership and supervision over local radio program activities.

Article 14. (1) A local program according to Article 13, Paragraph 1 is made up by the radio program commission established under the okrug or obshtina people's council or municipality. The membership of the commission includes representatives of the party organization, the people's council (municipality) and the post, telegraph and telephone office.

(2) Program materials are prepared by specialists stipulated by the commission under Paragraph 1. Materials are submitted to the commission for approval the day prior to broadcasting.

Article 15. The communications bodies provide temporary public address systems for measures of institutions and organizations after the concluding of a contract with them.

#### Section V: Fees

Article 16. (1) For the use of radios, television sets and amplifiers, fees are paid according to the Rates for Internal Postal, Telegraph, Telephone and Radio-Television Services.

(2) The fees under Paragraph 1 are prepaid according to Article 44 of the Law Governing Communications. Subscriber fees are paid for 6 months or for an entire year and are valid for the entire nation. When the subscriber fees are paid for an entire year, with the closing of the account before the first 6 months, one-half of the fee paid for the year is to be returned.

(3) In paying the subscriber fee, the subscriber is obliged to submit the receipt or subscription booklet for the last payment. In the event that he is unable to submit this, an official inquiry is made and this requires payment.

Article 17. Stores selling radios, televisions and amplifiers pay the public use fees, respectively, for one unit.

Article 18. Fees are paid according to power for loudspeakers connected to a radio or amplifier and set up outside the area in which the device is located.

Article 19. Fees established for loudspeakers for home use are paid for headsets which are used individually and are installed as part of the equipment for individual use in hospitals, sanitariums and so forth.

Article 20. For transportation, installation and use of a converter, a fee is paid according to the Rates for Internal Postal, Telegraph, Telephone and Radio-Television Services.

Article 21. Materials for a local radio program are not taxed, with the exception of announcements, texts with a musical accompaniment, advertisements, statements and congratulations the transmitting of which is of material interest to the sender.

Article 22. (1) Unpaid fees within a certain period are collected according to the procedure for collecting state charges on the basis of an order from the leader of the appropriate service according to Article 45, Paragraph 1 of the Law Governing Communications. The order can be contested to the minister of communications within a 7-day period by the person receiving it.

(2) Unpaid fees under Paragraph 1 are collected with a 4 percent increase for each overdue month according to Point V.15 of the Rates for Domestic Postal, Telegraph, Telephone and Radio-Television Services.

Article 23. Incorrectly collected fees are returned according to Article 46 of the Law Governing Communications.

Article 24. Freed from the payment of subscriber fees are the following:

1. Radio and TV receivers of blind and deaf citizens, pursuant of Article 47, Point 4 of the Law Governing Communications;
2. Portable radio and TV receivers, pursuant to Article 47, Point 5 of the Law Governing Communications;
3. Radio and TV receivers and loudspeakers of persons according to Article 47, Points 3 and 6 of the Law Governing Communications;
4. Radio receivers and amplifiers for internal sound systems of the Ministry of Defense, Ministry of Justice and the Bulgarian Telegraph Agency and used for official purposes;
5. Radio and TV receivers in the clubs and cafes for active fighters against fascism and capitalism and for reserve officers;
6. A radio installation without a receiver as well as the loudspeakers for it.

#### Section VI: Administrative and Punitive Provisions

Article 25. Violations of the Law Governing Communications and this ordinance are established by statements of the employees of the Ministry of Communications. On the basis of the compiled statements, the minister of communications or officials authorized by him issue punitive decrees according to the procedures of the Law Governing Administrative Violations and Punishments.

Article 26. When the violation has been committed by an official from an institution or organization, if the guilty party is not discovered, the punitive decree is issued against the leader of the institution or organization according to Article 24, Paragraph 2 of the Law Governing Administrative Violations and Punishments.



Article 27. The punitive decrees can be contested to the corresponding rayon court within a 7-day period of its receipt. Punitive decrees cannot be contested if the imposed fine is under 20 leva inclusively, according to Article 59, Paragraph 3 of the Law Governing Administrative Violations and Punishments.

Article 28. (1) The breaking or damaging of radio relay lines and devices owned by the Ministry of Communications by citizens or an official of an institution or organization is established by a statement from the communications body and drawn up against the person causing this or if the official is unknown, against the corresponding leader who permitted the damage according to Article 24, Paragraph 2 of the Law Governing Administrative Violations and Punishments. The statement is forwarded to the procurator's office.

(2) Appended to the statement under Paragraph 1 is an estimate of the amount of material damage caused and which is sought from the perpetrator by lawsuit.

#### Concluding Provisions

§1. This ordinance is not to be applied to the radio, television and amplifier equipment of the Ministry of National Defense and the Ministry of Internal Affairs for their special needs.

§2. The ordinance is to be issued on the basis of Article 3 of the Law Governing Communications.

Minister: P. Vanchev

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CSO: 5500/3008

FMLN RADIO CHIEF DISCUSSES OPERATION PROCEDURES

PA080405 Panama City DIALOGO SOCIAL in Spanish Nov-Dec 83 pp 37-41

["Exclusive" interview with Haroldo, political chief of the Radio Farabundo Marti clandestine radio station in El Salvador, by an unidentified correspondent in Chalatenango--no date given]

[Excerpts] Question: Before talking about the radio station, we would like to know about the general framework of the revolutionary media on the war fronts. What is the relationship between the revolutionary media and the development of the political, military, and mass organizations?

Haroldo: In the first place, we wish to thank the well-known magazine DIALOGO SOCIAL for the opportunity to address the Central American and Latin American people on the subject of an important front within the people's war of liberation: propaganda. Our activities as a revolutionary radio, an expression of the people's power, are closely linked to the idea that our work is simply another means of fighting within the revolution's general plans. When we talk about propaganda, we are not simply referring to means and messages; more important, we are talking about a new kind of power--the people's power. We see propaganda as a means by which the people's forces recognize their own power. The people see their war of liberation in the revolutionary propaganda, and their actions (political, military, cultural, etc) achieve historic significance as a result. These actions are closely linked with each other and, together, comprise the visual and objective practice of power by the working classes, the peasants, and the people.

Question: The experience in El Salvador reveals great development in the guerrillas' media. What are the information systems available to the FMLN-FDR, and how has this development been achieved?

Haroldo: Our Farabundo Marti Front has engaged in important work, through various means, on all three kinds of territory established by the war: territory under the people's control, territory in dispute, and territory under the enemy's heel.

We have done a tremendous job of printing leaflets, flyers, signs, and newspapers. We use manual printing methods in addition to mimeograph, silk-screening, and industrial mimeographs. We are also involved in important audio-visual

work, producing video-cassettes and films. Important cinema festivals have awarded deserved recognition to our films, including "El Salvador, the People Will Win," "Letters from Morazan," and others. Earlier this year in Chalatenango, we began the very rewarding use of popular mobile cinema. Our companeros include our films in a series of artistic activities, such as popular shows. These remind us of one of the most popular expressions of art and show business in El Salvador, the poor people's circus.

We must also mention our film crews, which are increasingly present on the battlefield. Our people's communications system also includes work with international press agencies. We also fight actively against the capitalists' transnational press agencies. Our Radio "Farabundo Marti" and the people's correspondents are part of these news media for the people.

Thus, we utilize different means: local means (among the peasants, such as the bulletin board newspaper in a guerrilla camp, the flyers that circulate in the factories and workers' neighborhoods in San Salvador, etc) and national and international means (which is the case with our radio stations, press agencies, movies, etc). I would add that there are other means of information available to our people: novels, poetry, personal statements, sculpture and paintings, and music. These also express the new viewpoint being heard in El Salvador and Latin America, the viewpoint of the exploited people.

Question: What are Radio Farabundo Marti's characteristics; how does it work, and what are its programs?

Haroldo: First of all, Radio "Farabundo Marti" is a revolutionary radio station that struggles, with the working classes and the people, against the puppet dictatorship, the oligarchy, and U.S. imperialism. Its work reflects the people's need to achieve liberation, to establish a revolutionary democratic government, and to recover our sovereignty, genuine independence, and self-determination. It is an expression of the people's power and it has been installed in Chalatenango, one of the rebels' areas, where the Salvadorans have already begun to build a new homeland. Therefore, it is a means of combat.

Question: How is Radio "Farabundo Marti's" information system integrated? What are its relationships with "Radio Venceremos," "Radio Guazapa," and "Radio Unidad"?

Haroldo: In order to guarantee our flow of information, revolutionary guidance, and the education of the Salvadoran people, Radio "farabundo Marti" has war correspondents and popular correspondents; it monitors local and international radio stations; and it has support groups in North America and Europe that report acts of international solidarity with El Salvador and the Central American people.

As for its relationships with the other FMLN radio stations, we currently coordinate an exchange of information about all political and military actions on the various war fronts. This is very important in presenting unified, objective information on the Salvadoran people's actions in their struggle for liberation.



Question: What are the roles of the mobile units, the correspondents at the main station and the station's different section?

Haroldo: We have gained the greatest experience from our popular correspondents. We have organized a national network of correspondents, including the city of San Salvador. We define a correspondent as a *companero* who is a part of the revolutionary forces and who has the task of reporting to the people about the events and actions carried out in this war of liberation, as an expression of their power. He is contributing decidedly to the victorious impetus given the current phase of battles that are decisive for our assumption of power. Therefore, he is closely linked to the people and their struggle because his activity is a part of the struggle itself. The correspondent is, therefore, someone who is a part of our propaganda, and he is not tied to anyone's interests by a salary. His notes, reports or information are also a part of the revolutionary process, but he is also prepared to fight with weapons. His whole life is involved directly in his work.

Question: What problems are being experienced by Radio "Farabundo Martí" and the other radio stations in their political-military work, which includes maintaining an active program schedule for more than a year?

Haroldo: Our problems are those derived from the war imposed on El Salvador by the U.S. imperialist government.

The dictatorship, using a backward system, jams the FMLN radio's signals. Even doing so, however, it cannot prevent our people from hearing our broadcasts, and our influence is important among the urban and rural masses. We are the direct expression of the people's movement and we are objective in this context.

Climatic conditions also create a problem for our audio and transmission equipment. Despite our care, the harsh climate (summer is hot and winter is rainy in El Salvador) forces us to replace equipment, which is practically impossible to repair. This is one of our main problems.

Question: How does Radio "Farabundo Martí" combat enemy interference?

Haroldo: So far we have used two methods: First, we split our signal whenever we detect the enemy's interferences, second, we transmit on more than one frequency so that a clean signal is always available when one is being interfered with. We consider our struggle against this interference to be the people's struggle against their enemies in the area of communications.

Question: How can the Central American and Latin American people hear Radio "Farabundo Martí"? Give us details on hours of transmission, frequencies, and ways of improving reception.

Haroldo: Our signal is heard on frequencies close to the 7 MHz 40 meter band, shortwave. On a regular basis, we are on the air at 0630, 1230 and 1900. Even though reception varies with atmospheric conditions, the best reception for Latin American countries will probably be during nighttime hours. In any event, you can improve reception by attaching a copper wire to your radio

antenna, running the other end out your window, and stretching it between two bushes. You could also connect the wire to your television antenna.

Question: Explain the local people's governments and their relationship to the work being done by Radio "Farabundo Martí's" system.

Haroldo: The local people's governments are one of the Salvadoran people's most important achievements ever. They are the specific expression of the new people's government, and they are expanding regularly through our territory. They are the people governing themselves, creating legislation and principles for the new man's behavior in society, they are expressions of the new sovereign power that defends national interests against a local army that serves as an army of occupation, led and trained by the U.S. Government.

We have recently taken a highly important step: We have passed from local people's governments to regional people's governments, a kind of government that is more developed in every way. Radio "farabundo Martí" attended the installation of the first regional government in Chalatenango, and the platform for this government—which was widely broadcast by us—caused considerable concern among the oligarchy's media. It was the most tangible expression of an end to the oligarchy's power, which was always based on their theft of the people's work. Our radio station is another instrument of the people's power and we are here to strengthen and increase it.

CSO: 5500/2025

## DIGITAL TRANSMISSION, MICROWAVE USED IN NEW PHONE SYSTEM

Kingston THE DAILY GLEANER in English 7 Nov 83 p 20

## [Text]

Hon. Parnell Charles, Minister of Public Utilities and Transport, yesterday inaugurated the Jamaica Telephone Company's new digital transmitting system which has the potential of providing five most up-to-date calling features.

The Minister inaugurated the new digital electronic telephone exchanges at Central 2 Exchange, Duke Street, which houses the host equipment for the Norman Manley International Airport Exchange, by making a call to the airport which has also been provided with a "remote unit."

The five features to be introduced enables, 1. calls dialled to a telephone number to be routed to another number; 2. a tone transmission to a customer already on a busy line, indicating that a call is waiting, and allowing the person to talk to the second party, then return to the first caller.

Other features include Three-way calling (a third telephone number can be

called that will enable a three-way conversation), Abbreviated calling (one digit is dialled to reach a seven-digit number or two-digits to reach an overseas number), and Automatic wake-up (ringing signal can be supplied to the telephone as an alarm for a pre-determined time.)

All Norman Manley Airport and Port Royal customers have been assigned new telephone numbers beginning with the digits 924-8 because they have been removed from the Harbour View Exchange. They will be able to dial directly to the United States, Canada and the Caribbean as the International Subscriber Dialling facility will be available to them.

The Remote Unit at the Norman Manley Airport will receive a microwave radio beam from Central as replacement for the present transmission cable that is buried in sand along the Palmdores strip to the Harbour View Exchange. Mr. Jack Stuart, Manager

of Network Services for the JTC said. The present system causes rapid deterioration of the plant because of salty condition and is vulnerable from a security point.

Mr. Stuart said the company plans to introduce a series of other cut-overs in the new system between now and the end of the year, the first to be done in Spanish Town on November 26. Following that, the JTC will provide the Kingston West and Washington Exchanges with the system on December 3, and the Montrose Exchange will have the cut-over on December 10.

The equipment was provided by Nippon Electric Company of Japan and a \$2-million contract to launch the cut-over was signed by the JTC with Mitsui Corporation of Japan.

Yesterday's cut-over should have taken place fortnight before but was delayed because of technical problems.

## ENTEL IMPLEMENTS TELECOMMUNICATIONS PROJECTS

PY061835 Lima EL COMERCIO in Spanish 26 Nov 83 p 4-A

[Excerpt] The National Telecommunications Enterprise (ENTEL PERU) is building a new earth satellite station in Huancayo at an approximate cost of \$50 million. It has completed installation of 10 domestic earth satellite stations in different sites around the country, and it is undertaking other projects with a \$300-million price tag.

Spokesmen for ENTEL have said that the Miguel Colina Marie earth satellite station in Huancayo, Sicaya District, will expand telecommunications facilities through about 300 satellite traffic channels. This earth satellite station has identical characteristics to that at Lurin, and it will improve reception of television signals via satellite.

The 10 domestic earth satellite stations have been installed as part of an International Development Agency project in places such as Juanjui, Contamana, Requena, Pucallpa, and Quillabamba, among others. They will make nationwide satellite communication possible, and through the Lurin earth satellite station, international communications as well.

Another project is the long distance international center which is in the hands of the Peruvian Telephone Company, but it will be taken over by ENTEL to be completed with the acquisition of equipment which includes 47 digital centers. These centers will go into operation in 1986, after bids in 1984 and signing contracts in 1985.

A fourth project is related to rural communications for provision of phone service, at least through a phone booth, to 300 localities, particularly provincial capitals and main districts.

Thus several regions will be incorporated into the long distance phone network.

CSO: 5500/2023

UN DELEGATE CALLS FOR BALANCE IN INFORMATION

Dhaka THE BANGLADESH OBSERVER in English 31 Oct 88 p 1

[Text] New York, Oct 30--Bangladesh has called for early establishment of a new world information and communication order based on equity and justice aimed at promoting international peace and understanding, reports BSS.

Speaking at the special political committee of the UN General Assembly here on Friday Bangladesh Permanent Representative to the United Nations Lt Gen (Retd) Khawja Wasiuddin said that the climate of international relations and the degree of mutual trust among nations depended greatly on the extent of free and balanced dissemination of information.

Ambassador Wasiuddin who is leading the Bangladesh delegation in the absence of the Foreign Minister said in this interdependent world when technical sophistication, particularly in the field of electronics has brought the nations very close to each other information and communication have tremendous influence on all aspects of our life including international relations.

He pointed out that the developing countries were lagging behind the developed nations in respect of human, technological and other aspects in the field of information and communication.

Therefore, he said it had become imperative to establish the new world information order to correct this negative situation.

The Bangladesh delegation leader drew the attention of the committee to the Dhaka declaration of January 1983 on the flow of information among the South Asian Countries.

CSO: 5500/7041

**'VOICE OF TAMIL EELAM' GOES ON THE AIR**

Calcutta THE SUNDAY STATESMAN in English 6 Nov 83 p 1

[Excerpt] Madras, Nov 5--Radio-listeners here were treated to a new station on 41 meters, which went on the air for the first time today with the song "Vazhga Tamil Eelam" (long live Tamil Eelam), said to be the national anthem of the proposed Tamil State in Sri Lanka.

The clandestine radio station described as "Voice of Tamil Eelam," was set up with equipment purchased from West Germany on one of the deserted islands north of Jaffna, according to the Peoples Liberation Organization of Tamil Eelam, a militant Sri Lanka Tamil youth group headed by Mr Uma Maheswaran. The group claimed responsibility for the recent Batticaloa jail break in which 58 political detainees and others were set free.

According to "Voice of Tamil Eelam," there will be regular broadcasts on Saturdays and Sundays with 7 to 8 p.m. to begin with, and its duration will be stepped up gradually.

The hurried opening of "Voice of Tamil Eelam" on the eve of Mr G. Parthasarathy's second mission to Colombo is considered significant.

The Tamil United Liberation Front, which was the main Opposition party in Sri Lanka when Mr Parthasarathy, Mrs Gandhi's special envoy made his first mission in the last week of August, had since been eclipsed and the leadership of the minority Tamils passed on to the militant Tiger groups.

CSO: 5500/7037



## COMMONWEALTH MEET GIVES TELECOM NETWORK A BOOST

Madras THE HINDU in English 17 Nov 83 p 7

[Text]

NEW DELHI, Nov. 16.

Every time a major international event is staged in the Capital — and there have been two since last November — the country's telecommunication network gets a boost. Another Rs. 1.5 crore expansion and upgrade programme to meet the needs of the coming Commonwealth Heads of Government Meeting (CHOGM) has just been completed, according to Mr. A. S. Wakhle, General Manager, Delhi Telecommunication.

Addressing a press conference here today, Mr. Wakhle said the "mainstay" of the telecom arrangements would be the 1,200-line electronic PABX installed at Vigyan Bhavan, the CHOGM venue. The facility, which was imported for the non-aligned meeting (NAM) in March last, will connect Ashoka and Samrat Hotels (where the heads of Government and their delegations will stay) with the CHOGM secretariat.

**Hot lines:** Only 14 heads of Government have so far asked for overseas "hot lines" which will give them instant contact with their capitals from Delhi and Goa, where they will be in "retreat" for two days during the conference. Mr. Wakhle said there was capacity for more "hot line" connections, but they would be installed on demand. About 130 inland "hot lines" have already been provided for contact between delegates in Delhi, Goa, Jaipur and Agra.

**Mobile equipment:** A new facility being provided for the CHOGM is the mobile communication equipment specially imported from the U.S. This enables delegates and officials of the secretariat to receive and make

phone calls while travelling in a car in Delhi. This is apart from the radio-paging facility, installed by the Telecommunication Research Centre, which will enable select personnel to be contacted at any time of day or night through signals.

As during NAM, telecommunication facilities for the media centre are being provided at the Vigyan Bhavan annexe to enable reporters to make trunk calls to any part of India and the world within minutes. The facsimile transmission of documents and pictures to 11 selected stations in the country will be available directly from the media centre. For other places like Madras and Calcutta, the OCS radio photo network will be available.

**Upgraded:** Some select exchanges, mostly in central and south Delhi, have been upgraded. Additional transmission links from Delhi to Bombay and Goa have been set up and the Delhi-Goa STD link has been bolstered with four more circuits. Mr. Wakhle said that special "fault control centres" had been set up at Vigyan Bhavan, Palam Airport and various hotels to provide round-the-clock maintenance. To increase the reliability of the circuits, a special 60-channel ultra high frequency (UHF) link had been installed.

Special telecom arrangements have also been made for the British Queen and her entourage. Four GATEX (Gateway Telex Exchange — for international Telex links) four Telex and five international telephone booths have been set at Shastri Bhavan for use during her visit.

CSO: 5500/7044

## PLANS FOR DIGITAL TELEPHONE NETWORK TOLD

New Delhi PATRIOT in English 8 Nov 83 p 5

[Text] India is on its way to switch over from the present analogue type telecommunications system to the advanced "integral digital network" to provide the subscribers with most efficient and widest subscriber trunk dialling system in the country.

A move has already been made in this direction with setting up of electronic trunk automatic exchanges in the country. Third such exchange will be inaugurated in the capital on Tuesday by the Communications Minister V.N. Gadgil.

Earlier two such telephone exchanges are functioning in Bombay and Calcutta with former having a 8,000 lines capacity and the latter with 3,000 lines. The Calcutta exchange has also an expansion capacity of 1,000 lines.

The Delhi exchange two will have 8,000 lines and will handle subscriber trunk dialled calls on level "0" from exchange level of 32 and 34 (Janpath), 64 (Nehru Place), 67 (Chanakyapuri) and 251 and 252 (Tis Hazari).

As the exchange gets stabilised, more and more exchanges of the Capital's telephone network will get hooked to it for handling subscriber dialled calls traffic.

The exchange equipment has been imported from Japan and will connect Delhi to Bombay and Calcutta through similar exchanges there and also various other cities like Chandigarh, Ambala, Kanpur, Patna, Hyderabad, Ahmedabad, Nagpur and a few others, it was learnt from the ministerial sources.

Fourth exchange of this type in the series will be commissioned in the remaining metropolis of Madras. The exchange here will have a capacity of 4,000 lines. It is expected to be commissioned before the year end.

All these four exchanges will be inter-linked through the INSAT-1B satellite system.

The total cost of the four sophisticated electronic trunk automatic exchange system is placed by the official sources at over Rs 41 crores. The Delhi exchange alone will cost Rs 16 crores.

CSO: 5500/7040



## ELECTRONIC PHONE EXCHANGE OPENED IN BOMBAY

Bombay THE TIMES OF INDIA in English 12 Nov 83 p 9

[Text] Bombay, November 11.

The first electronic local telephone exchange in the country was commissioned at Cooperage here, at 4.30 p.m. today. The inaugural call was made by Mr. V. N. Gadgil, minister of state for communications, to Mr. S. Saito, consul-general of Japan, across the table.

The commissioning of the Japanese-made electronic exchange was part of the concerted process to bring the country up-to-date with modern telecommunication facilities, Mr. Gadgil said.

Nearly 3,600 "23" subscribers were transferred to the '202' code on the 10,000-line capacity electronic Cooperage, today. Another 3,200 telephones on the '22' and '24' lines within the exchange area will also be transferred to the new exchange after about a week.

The Union government had decided to set up two factories in Bangalore and Gonda (Uttar Pradesh) for the manufacture of electronic switching systems with 5-lakh capacity each with French collaboration, Mr. Gadgil said. The factories, costing Rs. 280 crores, would go into indigenous production after about four years, he said.

### More Local Exchanges

The capacity for manufacturing telephones at Bangalore and Naini would be augmented from the current half a million to 1.5 million instruments in the next two years and the capacity of the trunk exchange manufacturing unit at Palghat would also be increased, the Minister said.

Mr. P. C. Jauhari, general manager, Bombay Telephones, said that the city will have 11 more electronic local exchanges in the next 18 months. Two exchanges will be installed at Cooperage, two at Bandra and one each at Khar, Mazgaon, Prabhadevi, Worli, Wadala, Ghatkopar and Marol, he said.

The commissioning of the exchange was accompanied by the induction of the electronic dual-tone multi-frequency push button telephone, for the first time in the country.

The Rs. 11.3-crore exchange, installed in nine months, had a smoke detector and automatic fire extinguishing equipment, Mr. Jauhari said. All components were available in duplicate for immediate replacement in case of damage, he said. The electronic exchange requires only one-third of the space occupied by a 10,000-line cross-bar electro-mechanical exchange, he explained.

#### Time-bound Plan

Mr. S. Saito, Japanese consul-general, congratulated the 36 men from Bombay Telephones who were trained in Japan in the installation of the electronic exchange.

The exchange will not only work at computer speed, but will provide the reliability associated with electronic equipment, Mr. Thomas Kora, secretary, Ministry of Communications, averred.

Earlier, Mr. Gadgil told newsmen that a Rs. 800-crore time-bound programme for upgrading the telecommunication facilities in the four metropolitan cities--Delhi, Bombay, Calcutta and Madras--was under the consideration of the government.

Among the buildings, which come under the new Cooperage-IV electronic exchange area are Mantralaya, the new administrative building of the state government, new council hall, old council hall (housing the office of the director general of police), the Colaba police station, police traffic control, the Sachivalaya gymkhana, P and T mail motor service, All India Radio, Air-India, Shipping Corporation of India, the State Bank of India, the Life Insurance Corporation, the YMCA, the LWCA and several other industrial houses and offices in the Backbay Reclamation area.

CSO: 5500/7042

## ITI TIE-UP WITH FRENCH FIRM FOR PALGHAT TAX PROJECT

Madras THE HINDU in English 17 Nov 83 p 10

[Text]

NEW DELHI, Nov. 16.

Production of digital trunk automatic exchanges (TAX) at the Palghat factory of the State-owned Indian Telephone Industries (ITI), under collaboration agreements signed here between ITI and CIT-Alcatel of France will begin in January 1985. The project will reach the rated annual capacity of 1.5 lakh lines in 51 months from the start of work in January 1984. Initial production will begin with semi-knocked and completely-knocked down imports and a progressive build-up of indigenisation later.

The agreements were signed by Mr. T. S. Subramaniam, Member, Posts and Telegraphs Board and Mr. K. K. Rao, Director (Finance) ITI on behalf of the P and T and the ITI and by Mr. J. Sidoti, visiting Director of CIT-Alcatel. Mr. K. Thomas Kora, Secretary, Union Communications Ministry, was present.

The cost of the Palghat project is estimated at Rs. 33.72 crores, the foreign exchange component being Rs. 15.83 crores. The agreements cover transfer of technology,

technical assistance and training as well as supply of capital equipment and material for the factory.

The agreements also cover the supply of 22,000 lines of digital trunk automatic exchange lines and support facilities for 16 exchanges. These are to be set up over a period of three years at Pune, Agra, Lucknow, Bhopal, Bangalore, Visakhapatnam, Surat, Ludhiana, Varanasi, Jodhpur, Ranchi, Raipur, Rajkot, Jalandhar and Tiruchirappalli. Their installation will facilitate subscriber trunk dialling (STD) in a big way. The first exchange will be installed at Agra.

The Palghat factory is already producing private automatic branch exchanges (PABX) and private automatic exchanges (PAEX) since 1976-77. The proposals for expansion of the factory to produce digital TAX was under consideration for a few years. Bids were also received from Belgian and Japanese companies. It was decided to accept the CIT-Alcatel offer.

CSO: 5500/7044

## BRIEFS

**HINDI TELETXT SYSTEM**—Trivandrum, Oct 27—The research and development centre of the Kerala State Electronics Development Corporation (Keltron), has developed a Hindi teletxt system with possible applications in news dissemination. The system will be demonstrated at the third Viswa Hindi Sammelan to be inaugurated by the Prime Minister, Mrs Gandhi tomorrow in New Delhi. The demonstration system consists of a data entry and edit station linked to remote colour view data terminals. The data entry key board is a standard Hindi typewriter key-board. No specialised training is required to operate it. Teletxt systems now available only in advanced countries can handle English alone. Keltron had introduced a system for English which was used during the Asiad. Our Special Correspondent writes from Delhi. Close on the heels of the launching of the Tamil computer Thiruvalluvar, the DCM has come out with a Hindi computer-cum word processor, Siddharth, which will be launched at the third world Hindi conference opening in Delhi tomorrow. Dr Vinay Bharat Ram, Deputy Managing Director of the DCM, said the computer could work both in the Roman and the Devanagar scripts. So it could be used in English and languages based on the Devanagari script, Computer-cum-word processors in other Indian languages would be launched soon. Dr Vinay Bharat Ram said the Hindi-speaking States had been sounded for use of this computer. He appreciated the interest evinced in the Tamil computer by the Tamil Nadu Government. [Text] [Madras THE HINDU in English 28 Oct 83 p 6]

**ORISSA TELECOM PLAN**—Bhubaneswar, Nov 1—A 20-year plan for the all-round development of telecommunication services in Orissa is under the consideration of the Centre, according to Mr R.S. Bansal, general manager (Telecommunication), Orissa Circle reports. PTI He told reporters here yesterday that such a plan was necessary to augment the telecommunication services in the State, with a view to keeping pace with its economic development. Mr Bansal said a modern electronic digital trunk exchange to connect all the district headquarters would be installed at Cuttack. The exchange equipment, imported from France, would be commissioned by early 1985, he added. Expansion of auto-exchanges at Cuttack and Bhubaneswar by 1,000 lines, as well as the exchanges in some of the district headquarter towns and installation of a store and forward traffic system at Bhubaneswar to clear all the telegraphic traffic without delay were also included in the department's plans for the next two years, he said. Mr Bansal said that under the INSAT-IB programme, six circuits would be commissioned between Bhubaneswar and New Delhi through the

satellite. Long-distance satellite communication circuits, commissioned via the 28 earth stations, including Bhubaneswar in 1982, would be fully brought into use through the satellite, he added. [Text] [Calcutta THE STATESMAN in English 2 Nov 83 p 6]

DELHI-STATES COMPUTER NETWORK--New Delhi, Nov 6--A computer network aimed at improving the exchange of information between the Centre and States is being taken up by the National Informatics Centre (NIC) of the Department of Electronics. Code named "Nicnet," it plans to link all State capitals to a giant computer kept at the NIC headquarters here. Each State would require a small-sized computer network of its own with data feeding and retrieval terminals at all district headquarters. Linking of the NIC master computer (fed with Central Government information) to the State computer networks would facilitate instant availability of information at both ends. The two-way computer information exchange would be routed through INSAT. The Indian Telephone Industries (ITI) has been asked by the Department of Electronics to design roof-top earth stations to link the Government office terminals with INSAT. Any Government agency having a terminal could have access to information and data related to governmental activity. NIC is already working on a pilot State computer network project for the Gujarat Government. Similar requests have come from Madhya Pradesh and Andhra Pradesh.--UNI [Text] [Madras THE HINDU in English 7 Nov 83 p 6]

GOVERNMENT-CONTROLLED MEDIA ACCUSED--Jammu, Nov 7 (PTI)--The Jammu and Kashmir Chief Minister Farooq Abdullah today "strongly condemned" the government controlled news media here for "inciting" the people." According to a state government handout, the Chief Minister said that All India Radio should show a greater degree of responsibility rather than inciting the people. He appealed to Prime Minister Indira Gandhi to restrain her party-men from creating situations which were not conducive to national integration and unity. [Text] [New Delhi PATRIOT in English 8 Nov 83 p 1]

TV TRANSMISSION CHANNEL--A wideband microwave communication system is being set up in Amritsar to interlink Simla, Chandigarh, Ambala, Ludhiana and Jullundur on 1,800 new channels. The main feature of this system will be a TV transmission channel capable of color transmission between Amritsar and Jullundur. The system will cost 500 million rupees and will be ready by June next year. [Text] [BK241229 Delhi Domestic Service in English 0830 GMT 24 Nov 83]

SOUTH ASIAN TELECOMMUNICATION NETWORK--An Asian telecommunication network is being set up in Amritsar to link Pakistan, Bangladesh, Nepal and Sri Lanka with the Indian telecommunication network. It will cost 12 crore rupees and will be completed by September 1984. Half of the cost is to be met by Pakistan. As part of the network another coaxial cable link will also be set up between Jodhpur and Mirpur Khas in Pakistan. [Text] [BK280345 Delhi ISI Diplomatic Information Service in English 1439 GMT 25 Nov 83]

TV RELAY CENTERS--The information and broadcasting minister, Mr H. H. L. Bhagat, has said that there will be 183 TV transmitter-cum-relay centers by the end of next year. At present there are 43 such centers. Talking to newsmen in Lucknow today, he said Uttar Pradesh will have seven high power and 16 low power transmitters. [Text] [BK051113 Delhi Domestic Service in English 1530 GMT 4 Dec 83]

**NEW MICROWAVE LINK**—Microwave Link (PTI): The Union minister of state for communication, Mr. Vithalrao Gadgil, laid the foundation for the first microwave link in the Marathwada region in Latur on Sunday. The microwave link between Solapur and Latur will be completed within three years. [Text] [Bombay THE TIMES OF INDIA in English 14 Nov 83 p 5]

**INSAT-1C PLANS**—The next INSAT satellite--Insat-1C--would be launched in June 1986 aboard the US space transportation system (STS) Prime Minister Indira Gandhi told the Lok Sabha on Wednesday. It was being built by the Ford Aerospace and Communication Corporation who built INSAT 1A and 1B, she said in a written answer. In another reply, Minister of State for Science and Technology Shivraj Patil said the total expenditure incurred on INSAT-1B was about Rs 48.67 crores. The expenditure on the master control facility (MCF) at Hasan in Karnataka to track the satellites was about Rs 18.23 crores. [Text] [New Delhi PATRIOT in English 17 Nov 83 p 5]

CSO: 5500/7043/7045



# REPORT ON TELECOMMUNICATION NETWORKS IN BENIN

Paris EUROPE OUTREMER in French No 639, Apr 83 p 23

[Article by Taofiqui Bouraima, minister of transport and communications]

[Text] Benin lies in a privileged geographic position between two English-speaking giants, Nigeria and Ghana, and is therefore pre-eminently a country of economic transit between French-speaking and English-speaking countries in West Africa, as well as a port of access to certain Sahel countries.

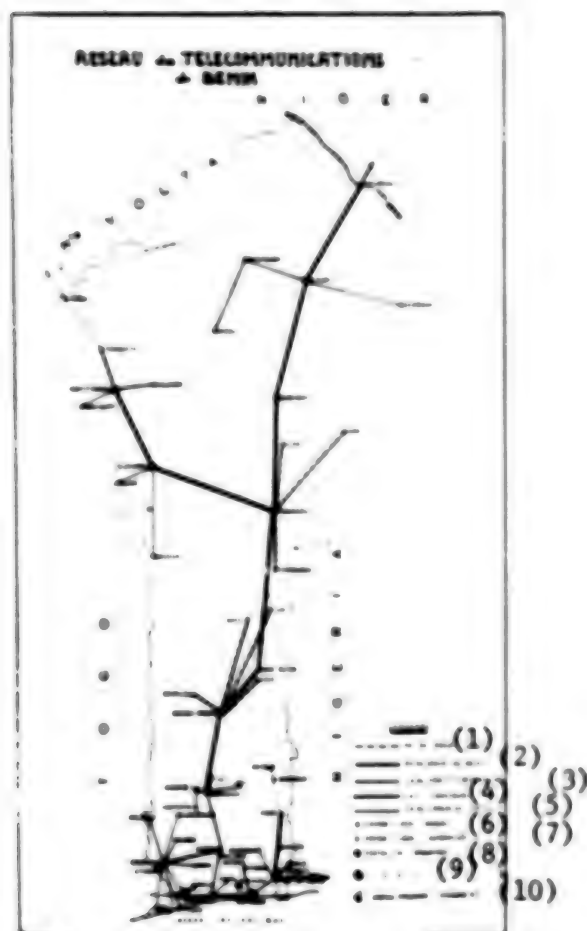
To act effectively as a transit center, Benin has given itself a network of communication routes coupled with an adequate telecommunication network which it must further expand and modernize to meet its increasing needs.

## Present Situation

After a period of stagnation, telecommunications in Benin have made remarkable progress during the past few years. This is convincingly demonstrated by the following facts and figures:

- In 1963, there were only 2,000 telephone subscribers in Benin.
- Cotonou and Porto-Novo were the only towns equipped with automatic telephone exchanges, with capacities of 1,600 and 800 lines respectively.
- The Cotonou teletype exchange, a CGCT [General Telephone Engineering Company] crossbar exchange, had 50 directions and all international telegraph communications through it were transmitted manually.
- International (telephone and telegraph) communications were transmitted on decametric waves, which have a somewhat restricted capacity.

Today, the situation has changed a lot. In 1983, Benin counts close to 11,000 telephone subscribers, thanks to a sustained and accelerated automation plan. There are now 18 automatic telephone exchanges distributed throughout the country. Toll calls have become more reliable now that microwave links are used. For instance, there are now high-frequency connections between Cotonou and Porto-Novo, Cotonou and Ouidah, Ouidah and Attogon, Attogon and Bohicon, Bohicon and Malanville. The interconnection of our coastal microwave relay network with those of Nigeria, Togo and Niger makes it possible to communicate with these countries by telephone or telegraph.



Benin's Telecommunications Network

Key:

1. Projected FM [expansion unknown]
2. FM installed or in operation
3. LA [expansion unknown] or cables to be rebuilt
4. LA to be built
5. LA or cables in operation
6. Local manual exchange
7. Local automatic exchange
8. Collecting exchange
9. National and international telephone exchange
10. Land station (type-A switchboard)



On the whole, our international communications have greatly improved, first due to the introduction of satellite telecommunications (rental of channels from the Lagos and Niamey land stations) and the use of submarine cables (for all traffic with the Ivory Coast with Senegal and part of the traffic with France), and second due to the opening of the Cotonou International Telephone Exchange, a digital-type (MT 20) exchange. As a result, Benin now enjoys automatic communications with Nigeria, Niger, Togo, Upper-Volta, the Ivory Coast, Senegal, France and all countries having automatic connections with France.

As far as teletype is concerned, a marked improvement was achieved in 1978 when the international Eltex electronic exchange was placed into service. This exchange provides automatic or semi-automatic service for all international connections.

### Prospects

The present prospects for telecommunications development are in line with the progress achieved in recent years. Without exaggerating, we can say that with its present stage of development, Benin has entered the era of space telecommunications. Indeed, the quality of international communications will considerably improve as soon as the satellite communication ground station now under construction is placed into service. It will then become possible to offer or contemplate automatic communications with many countries in Africa and throughout the world, thanks to the international telephone exchange already installed.

Within Benin, toll and long-distance communications will benefit from the tension of the microwave relay network to include the Parakou-Natitingou connection, the extension of this connection toward Upper-Volta, and the Porto-Novo-Sakete-Pobe connection. Automation of the telephone network will also continue. By 1984, the number of automatic telephone exchanges will have increased to 52, as districts are now being equipped with 34 additional exchanges, which will bring the installed line capacity close to 30,000 lines, i.e. 3 times as many as are now connected.

Obviously, Benin's national telephone network will continue to grow at a steady rate. Our objective is that of the Decade of Transport and Communications in Africa: 1 telephone for every 100 inhabitants by 1987.

To achieve this, we may even consider adopting new technologies, especially the digitization of exchanges and transmission networks.

9294

CSO: 5500/27

REPORT ON TELECOMMUNICATIONS NETWORK IN THE IVORY COAST

Paris EUROPE OUTREMER in French No 639 Apr 83 p 24

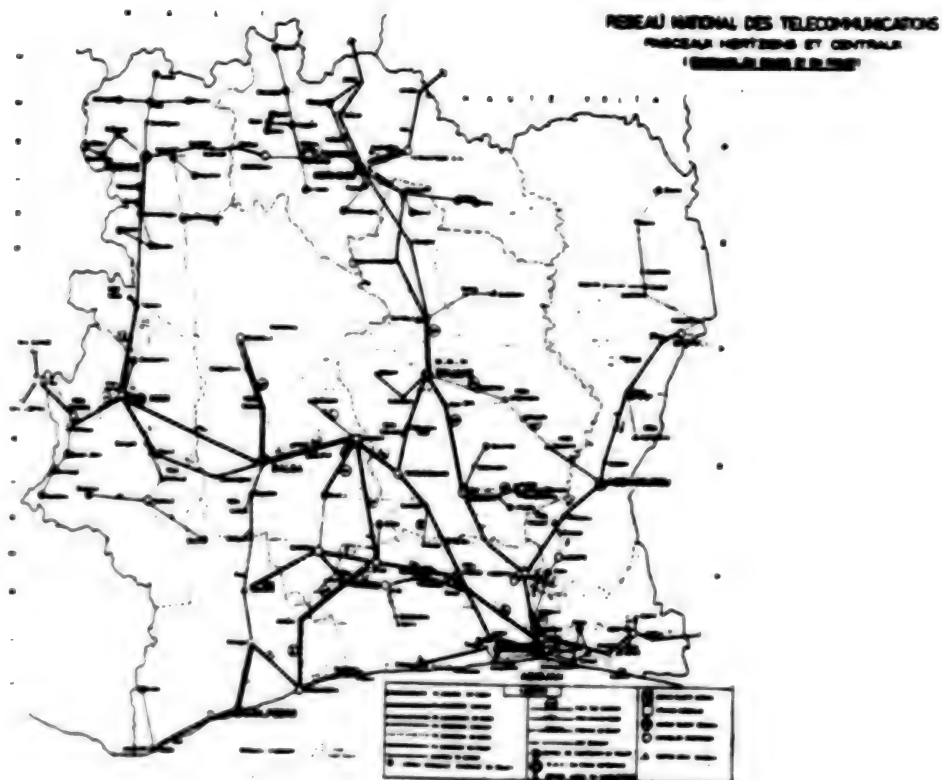
[Article by Kouassi Apete, minister of posts and telecommunications]

[Text] In the Ivory Coast, telecommunications are the province of the Ministry of Posts and Telecommunications which supervises the Posts and Telecommunications office (in charge of the domestic network) and INTELCI [International Telecommunications of the Ivory Coast] (in charge of the international network and data communications).

The full development of our international network began in 1969, when INTELCI was created, and that of the domestic network in 1974, when the Posts and Telecommunications Administration became the Posts and Telecommunications Office which was given power to borrow to invest.

Briefly, the expansion of the network took place as follows:

- starting with 72 local networks and 14,794 subscribers in 1969, we have now reached 114 networks, 29 of which are automatic, and 43,342 billed subscribers (including close to 34,000 in Abidjan). By the end of the 1981-1985 plan, these figures should be 53 and 60,000 respectively; 92 percent of the subscribers are connected to an automatic exchange.
- an urban and suburban center with 2,010 switches;
- a national center with 1,826 switches;
- an international center with 621 switches serving over 440 phonic circuits distributed over 27 countries, including 225 through cables and 215 via satellite thanks to 2 antennas;
- 1,502 billed teletype subscribers connected to 2 automatic electronic switchboards in Abidjan (a total of 2,000 pieces of equipment) and a concentrator at KM4;
- over 11 large-capacity (300-960 channels) microwave links;
- the network includes 71,150 pieces of switching equipment, of which 94.5 percent are automatic and 32 percent use electronic time-division technology (they are distributed in 4 of the 6 Abidjan exchanges).



National Telecommunications Network - Radio Relay Systems and Exchanges  
 (Existing, Under Construction and Projected)

Key:  
 [illegible]

The network thus provides good coverage; over 60 percent of the subprefectures are served. Telephone density is now around 0.56 percent and will reach 0.9 percent by 1990.

Problems remain as far as service quality is concerned, and the department is busy trying to solve them. These problems are:

- the time it takes to have the telephone installed (over 1 month): 15,000 current applications, i.e. 34.6 percent as many as connected subscribers;
- the time it takes before lines out of order get repaired: there has been a marked improvement, but it still takes more than a week in over 2 percent of the cases during the rainy season;
- the traffic fluidity inland (24 percent); it will improve considerably already this year when new microwave links are placed into service and when transverse connections and the zone centers already built are used.

However, new services are already available to users, namely:

- the Sytran network which already offers some 50 channels for teleprocessing and is about to be connected to the French Transpac network through a concentrator in Abidjan;
- the radiomobile service, i.e. telephone in vehicles. This service is now offered around Abidjan and will be extended along the Abidjan-Yamoussoukro-Bouake axis;
- rural telephony which connects subscribers scattered in rural areas to a distant exchange under attractive conditions (experimental network around Yamoussoukro).

Past investments have decidedly favored domestic and foreign trade routes, and receipts from telecommunications have made them a direct agent in the development of the Ivory Coast:

- over 10 billion in wages paid to close to 4,000 agents of all categories working all over the country;
- close to 15 billion in added value.

The 1976-1980 plan included over 61 billion CFA francs in investments, and the 1981-1985 plan, amended as a result of current economic problems, includes some 58 billion francs of investments. The growth of annual investment figures is a significant reflection of the efforts made. From less than 1 billion in 1972, they increased to 17.5 billion in 1981. Receipts, too, have increased as service quality improved, from 4.7 billion in 1972 to 40 in 1981.

Large projects in progress are: a 10,000-line urban center in Abidjan, a 4,000-line electronic time-division exchange in Bouake, and an international center using electronic time-division technology in Abidjan.

Despite these considerable achievements, telecommunications are still lagging behind the economic and social development of the country.

## ANOTHER VIEW ON RADIATION

Cape Town THE CAPE TIMES in English 21 Nov 83 p 9

[Article in the "A Word in Edgeways" column by Brian Barrow: "Another View on Radiation"]

[Text]

THERE HAS been a great deal of honest hysteria about the nuclear power station at Koeberg. The anti-school in its saner moments has made us well aware of the possible dangers, so much so that the pro-school has had difficulty dispelling public fears of radiation.

The very word radiation has been made to sound ominous. Of all the people I know, only one, a girl called Sarah, has no fears of radiation whatsoever. And she lives in Koeberg. Her husband works there.

She had taken the trouble to find out the facts and she was so calm and sensible about it that I wondered whether it wasn't high time we all began to cool things a bit. Nevertheless my own secret fears persisted.

But I have just read a review by the Daily Telegraph science writer Adrian Berry of a book, *Radiation and Human Health*, by J T Mensah, which puts the whole problem into perspective.

It seems that no myth is more widely believed than that radiation is continually escaping from nuclear plants and quietly and insidiously giving people cancer and leukaemia.

In our use of other sources of power like coal and oil people are being killed frequently and in great numbers. Forty-four people were killed in coal-mining accidents in Britain last and the accidents barely received a mention in the press.

But if it was ever proved beyond all doubt that one person had died from a radiation leak from a nuclear power station there would be a national outcry.

As far as nuclear power plants are concerned, sensational journalism has been largely responsible for what has been called a "tragedy of misinformation".

This has been the direct cause of thousands of deaths in the Western world each year as plans for nuclear power

stations have been cancelled in favour of the immeasurably more dangerous coal mining.

The inflammatory language used by newspapers and television has been largely responsible for the public's fears of radiation — expressions like "deadly radiation" and "lethal radiation" for a danger that hasn't killed anyone.

We never hear of lethal water, deadly motor cars or deadly electricity, even though thousands of people are killed on our roads every year and hundreds are drowned or electrocuted.

### Where from?

And where does all the "deadly" radiation come from? Dr Jonathan Mensah in his book gives an answer that will surprise many people. He says that in Britain only a tiny amount of it comes from nuclear power stations.

Just on 67 percent of radiation comes

from the natural background, 30 percent is medical in origin, other man-made radiation accounts for 1.88 percent and only 0.18 percent comes from nuclear power stations.

Natural background radiation, which dwarfs the rest in quantity, consists mostly of cosmic rays, a general term for the diverse particles that reach us from outer space.

Exploding galaxies, stars being devoured by black holes, quassers and pulsars, out-pourings from the sun and even the ceaseless radio static from the remains of the Big Bang that formed the universe, all combine to make our world a cauldron of radiation.

In the time you take to read this column about three million trillion neutrinos will have passed through your body at the speed of light. Who knows what effects cosmic rays may have had on health and on evolution. These particles from outer space may have made us what we are. In short, radiation could have been good for us.

Who knows, during the long epochs of pre-history our bodies were changed and mutated by particles from outer space and that if it wasn't for radiation the human race might not exist.

Furthermore the effects of radiation are much better understood and appreciated by science than the effects of food additives, air pollution and other possible technological hazards. There is nothing mysterious about it except that you can't see it, hear it or smell it.

Radiation then is a fact of life and we benefit by it more than we realize. Controlled radiation is used for example to sterilize medical supplies and to improve the keeping quality of foodstuffs.

It is used in industry, medical science and in the study of the environment, environmental pollution, agriculture and hydrology.

I dare say Koeberg will soon become a fact of life as well and the time will come when we'll no longer bother to talk about it.



## REPORT ON TELECOMMUNICATIONS NETWORK

## Domestic and International Networks

Paris EUROPE OUTREMER in French No 639 Apr 83 pp 26-27

[Article by the Directorate of Posts and Telecommunications]

[Text] As soon as it came to power in 1967, the government of Gen Gnassingbe Eyadema started implementing a judicious policy of telecommunications development in Togo. Thus, the telecommunications development plan prepared in 1968 stressed the urgent need to provide the country with modern and reliable networks that would meet the domestic demand for telephone, telegraph and teletype communications on the one hand, and, on the other hand, interconnect the networks with the Panaftel network and provide intercontinental connection capabilities. Because of the geographic configuration of the country's territory, telecommunication networks are built around the main south-north axis.

## Domestic Network Configuration

The Togolese telecommunications network consists of large-capacity (300, 600, 960 channels) microwave links located along the south-north axis and along the coast. Transverse connections are usually made through overhead lines, some of which are equipped with 3-12 channel carrier-current systems; they serve communities on both sides of the main axis. On its way, the main line, Lome-Ouagadougou, serves the towns of Atakpame, Sokoda, Kara, Sansane-Mango and Dapaong. It consists of three different types of equipment from two manufacturers, which were installed in two stages.

The first stage, Lome-Kara, is 400 km long and was installed in 1973 using 300-600 channel LHP4TRT equipment in a 1 + 1 structure in the 4-GHz band. After the Cacavelli ground station was built 8 km north of Lome, the Lome-Cacavelli-Mont Agou hops were replaced by Thomson-CSF FH-GG5 960-channel equipment in a (N + 1) structure operating in the 7.5 GHz band. The second stage in the construction of the south-north line was the Kara-Ouagadougou connection. It uses a new version of the TRT ER4D equipment and operates in the 4-GHz band through 300 channels (with a 960-channel capability); it was placed into service in 1976.

The east line connecting Lome to Cotonou uses the initial version of the TRT ER4D equipment; it has a capacity of 960 channels (1 + 1) and operates in the

lower 4-GHz band. The west line now under construction will use Japanese equipment made by NEC [expansion unknown]; it will have a capacity of 960 channels and will operate in the 6.8-GHz band. It is scheduled to be placed into service later this year.

These east-west lines are therefore one link in the Conakry-Lagos Panafel coastal connection. Having decided to automate its entire network, Togo is now implementing a telephone-line modernization program under which subprefectures will be served by small and medium-capacity digital microwave links in order to optimize the utilization of the main lines. Under the program, the following connections have already been installed: Lome-Aneho using digital equipment and with a capacity of 240 channels in the 2-GHz band; Aneho-Tabligbo, 30 channels in the 400-MHz band; Kara-Niamtougou, 14 channels in the 900-MHz band.

#### International Telecommunications Situation

To promote the development of international telecommunications essential to the Togolese economy, now in full growth, and its opening on the outside world, Togo elected to use the worldwide satellite communications network implemented by Intelsat. To achieve this objective, a type-A switchboard land station was built in Cacavelli, 8 km north of Lome, next to the microwave relay node station. Its antenna is pointing to the Intelset IN-A-F3 satellite of the Atlantic region. It is operated by the Independent International Telecommunications Company of Togo.

Thanks to French, Ivorian, British and U.S. relay stations, Togo enjoys fully automated communications with 112 countries in the world, including 36 in Africa.

Under its international telecommunications development plan, Togo is contemplating the opening of new connections via satellite and via the Euro-African system of submarine cables, so as to diversify its international communication means.

#### SATELIT

Paris EUROPE OUTREMER in French No 639 Apr 83 pp 27

[Article by P. Bourgon, general director: "The Independent International Telecommunications Company of Togo (SATELIT)"]

[Text] International communications in Togo date back to the last century.

1889: The submarine telegraph cable between Cotonou and Grand-Bassam (Ivory Coast) was placed into service. This cable was part of the network operated by the French Sud-Am company.

1913: The transmitting station of Kamina (7 km southeast of Atakpame) in direct connection with Berlin was placed into service; in that era of long waves, this was a remarkable performance and the station was used as a relay for German ships operating in the South Atlantic during World War I; but this connection was short-lived as the Germans, driven back by French and British forces, destroyed the Kamina facilities in the night of 24-25 August 1914.



1914-1946: At the time of the French (League of Nations') mandate, local telecommunications with Cotonou and Ouagadougou were ensured by overhead lines, and international telecommunications by the Sud-Am submarine cable through which Cotonou was reached and, from there, Grand-Bassam and Monrovia.

1946-1960: During World War II, the old submarine cable had to be abandoned and during the French (UN) supervision, international telecommunications were made through radiotelegraphy, using the RGR (General Radioelectric Network) via the large French West African center of Bamako, then through radiotelephony.

1960: Togo became independent.

1963: An agreement between France-Cables and Radio [FCR] (the successor, in particular, of the old Sud-Am) and Togo was signed; it involved the construction and operation of radiotelephonic and radiotelegraphic connections. (Soon after that, the French Postal, Telephone and Telegraph administration created microwave links connections: Lome-Cotonou and Lome-Ouagadougou).

1963-1977: During these 15 years, under the impetus of FCR, decametric-wave connections were successively opened with Paris, Abidjan and Accra through the Tokoin transmitting center, the Cacavelli receiving station, the network connecting center and the central radioelectricity office.

However, the growth of the telephone, telegraph and teletype traffic worldwide at the average annual rate of at least 15 percent, and technical progress made it possible to use modern large-capacity systems such as submarine cables with immersed repeaters, and man-made telecommunications satellites.

Togo, a young and decidedly dynamic country could not remain cut off from this trend; as a result:

- it acquired a satellite telecommunication ground station in 1977;
- in 1978, an order was issued for the creation of a semi-public company: the Independent International Telecommunications Company of Togo (SATELIT), with an initial capital of 200 million CFA francs (55 percent owned by the state, and 45 percent by FCR).
- 1 January 1979: Date when SATELIT was scheduled to start its operations.

#### Main Objectives of SATELIT

- Design, construction, maintenance and operation of any radioelectric submarine telecommunication system.
- Engineering, maintenance and operation of the satellite telecommunication ground station authorized to the company by the government.
- Installation, maintenance and operation of all international telecommunication lines entrusted to the company by the government to ensure international communications with the Togolese Republic.

- Training of the company's Togolese cadres.
- Acquisition of an interest in any global international telecommunications systems via satellite, coaxial cable with immersed repeaters or any other means.
- Acquisition, procurement and exploitation of any licenses, rights and privileges concerning the land connection, installation and operation of submarine cables, the construction of radioelectric centers, ground stations [end of paragraph missing].

#### International Telecommunications Development

In nearly five years of existence, SATELIT has routed an increasing volume of telecommunication traffic every year. Indeed, although there was some stagnation of telegraphic traffic (2.9 million words) and teletype traffic (1.1 million minutes), telephone traffic, on the other hand, experienced a remarkable growth: 1.1 million minutes in 1979 and 4 million minutes in 1982, i.e. 3.6 times as many.

Togo is now directly connected to nine countries and SATELIT operates the connections with seven of these countries (the other two, Benin and the Upper-Volta, are connected via land circuits operated by the Posts and Telecommunications Administration).

Country	Circuits				Total
	Telephone	Telegraph	Teletype	Leased	
France	34	(2)	44	2	80
Ivory Coast	11	(1)	11	4	26
Gabon	4	(-)	-	-	4
United-Kingdom	4	(0)	-	-	4
United States	4	(1)	12	-	16
Senegal	2	(-)	-	-	2
German Federal Rep.	2	(-)	-	-	2
Total	61	(4)	67	6	134

In 1983, in addition to new circuits for existing connections, four new connections are scheduled to be opened (with Niger, Switzerland, Italy and Mali), thus increasing from 134 to 166 the total number of circuits in operation. Obviously, such an increase can only be the result of a wise investment policy.

Through the cacavelli ground station, SATELIT (working in cooperation with RTNM [expansion unknown]) thus makes it possible for Togolese TV viewers to watch direct broadcasts of the news and political, economic and sports events taking place throughout the world, and it also broadcasts to the outside world all events of international import taking place in Togo.

SATELIT has a medium-range plan and a long-range plan. The latter provides in particular for network connection to the future submarine cable to be laid off the Togolese coast, a welcome addition that will both diversify our technical means of international telecommunications and open interesting new prospects. As far as its personnel is concerned, the company now employs some 50 agents of all categories.

# EARTH SATELLITE STATION TO BE BUILT AT MAZOWE

Harare THE HERALD in English 22 Oct 83 p 1

[Text]

**A \$7 MILLION earth satellite station is to be built at Mazowe, enabling Zimbabwe to reroute telecommunication links from South Africa by the time the nation celebrates its fifth year of independence.**

This was said in Harare yesterday by the Minister of Information, Posts and Telecommunications, Dr Nathan Shamuyarira, when he signed letters of intent for the provision of the standard A earth satellite station with the Nippon Electric Company of Japan.

The South African link-up was undesirable, said the minister. "There are many instances when we have discovered that our lines have been monitored by South Africa, intercepting Zimbabwe's messages, especially those of a developmental and political nature."

The Mazowe earth satellite would also enable Zimbabwe to have direct telephone links with 120 countries throughout the world.

The minister had announced three days ago that 120 countries would be able to dial direct to Zimbabwe from November 1. Now Zimbabwe will be able to reciprocate this arrangement in April 1985.

CSO: 5500/24

## FINLAND JOINS THE EC EURONET AUTOMATED DATA SYSTEM

Helsinki HUFVUDSTADSBLADET in Swedish 27 Oct 83 p 17

[Text] On Wednesday afternoon the Central Board of Post and Telegraph initiated its collaboration with the automated data system of the EC countries, the so called Euronet system. The Finnish people will now be able to take advantage of the services offered by about 50 institutions. At the same time the Finnish data producers will be able to sell data on the same conditions as the corresponding European ones.

In our country the Finnish School of Economics will be the first automated data base supplier within the Euronet system.

The link to the Euronet was opened by Communications Minister Matti Puhakka. He emphasized, among other things, that the increasing number of job positions that the general automated data network is offering is having a strong effect on the development of telecommunications. The agreement to collaborate within the telecommunications area was made at the end of last year.

Data bases are large registers that are stored in the memories of computers. By means of these it is possible to control ever increasing amounts of data. It is, for example, possible to glance through libraries consisting of several millions of publications in just a few seconds.

## Finland Represented At World Exhibition

The Finnish telecommunications industry is strongly represented at the world exhibition that was opened on Wednesday in Switzerland.

The Nordic collaboration in the area is considered so unique that it is believed to generate considerable interest among the visitors.

The Scandinavia Day will be celebrated on Saturday; at hand will then be, among others the highest chiefs of all the Nordic telecommunications companies. The exhibit will close on 1 November.

9662

CSO: 5500/2535

## GOVERNMENT BROADCASTING COMPANY REACTS TO SATELLITE CHALLENGE

Copenhagen BERLINGSKE AFTEN in Danish 21-27 Oct 83 pp 1, 12

[Article by Ojvind Kyro]

[Text] The bombardment by numerous satellite channels is about to begin and the government will soon break the old TV monopoly. For this reason, the leadership of the Danish Broadcasting Company has begun to plan for a future that will match the competition over the airwaves. A committee has begun to develop alternatives to DR's (Danish Broadcasting Company) massive bureaucracy. Company directors are sitting in their isolation booth to think up new forms of programming.

TV satellites soon will be flying overhead. The government will propose legislation to break the TV monopoly of the Danish Broadcasting Company. This prospect has prompted the DR leadership to plan for better programming and less bureaucracy.

"Perhaps things have moved faster than we thought," admitted acting director of the television company's entertainment section (UHA) Henrik Iversen, who added, "It is about time for us to make plans for the future."

On Tuesday general director Laurits Bindalov ordered all his sections to propose new types of programming to meet the challenge of the future competition. In addition, he appointed a working group, which already has been given the nickname the "living room suite," to recommend a more streamlined form of organization within the Danish Broadcasting Company by the end of the month.

The key word in DR's competition with the satellite programs and with TV-2 seems to be "entertainment."

### Matador Versus Star Wars

At 2110 Monday evening the Danish Broadcasting Company will bedazzle viewers of one TV channel with its new program Eldorado, starring Jorgen Mylius. According to the informative subtitle, it includes "pop, show, video, and rock."

"This type of programming is a step on the path toward creating a Danish alternative to the English and American satellite programs," UHA chief Henrik Iversen said. He said that DR would fight the satellite programs with a dose of their own medicine, by broadcasting the same type of programming, but of a better quality.

Although UHA already controls the bulk of the broadcasting hours (396 hours last year), Henrik Iversen said that the war would be fought on the entertainment battlefield, if DR hoped to compete with the satellites. "We must not allow ourselves to be convinced that all foreign TV is of high quality," he said. "The Matador series can compete with Star Wars anytime, because it gives us a feeling of togetherness to see our own favorite actors. We must present more Danish fiction--both of a light and of a serious nature--if we are to compete with the programming that soon will inundate us."

Head of the Radio Council Birte Weiss (Social Democrat) said that Jorgen Mylius' Eldorado program was more entertaining than Melody Grand Prix, "but I do not believe it can compete with the satellite channels. I also doubt that giving higher priority to entertainment programs in the way for DR to go."

#### Stamps And Hunger

In the children and youth section, the code word also is "entertainment." "The best form of entertainment is a description of reality in fictional form," program director Mogens Vemmer said.

He is not afraid that children and young people will tune in channels with cartoons and other mindless programs because they eventually will become tired of them.

Thus, he has two recommendations.

First of all, specific programs for children with particular interests. This would include programs about shipbuilding, gliders, stamp collecting, and similar topics.

Secondly, children's programming must avoid the "pacifying journalistic social realism" that children and young people already can see in adult programming from the TV news section and, instead, it must produce more entertaining fictional programming.

"Showing a program on hunger simply causes shock and hopelessness. It is better to show a fictional program about people helping a developing country. This shows that something can be done," Mogens Vemmer said.

Radio Council chairman Birte Weiss said that DR was in a good position to meet the future competition. "I am optimistic about this. Even though we never will be able to compete with satellites when it comes to the quantity of



programming. As a result, we must improve the tools we have and, if we dare, we can become very good."

She pointed out that "programs that now are presented as informative can be produced in a more dramatic form." She stressed that more daring, more research, and more professionalism must be present in all types of programming.

#### Around-The-Clock TV

If all the plans that companies and politicians in Europe have presented to the people come true, there will be 22 European satellite channels and half that many American channels to choose from in 1987.

"This massive around-the-clock TV offering to Danish viewers will result in a general increase in TV viewing," said Erik Nordahl Svendsen, media researcher at DR. He estimates that Danes will increase their viewing by 1 hour per day, on the average, above the present 1.5 hours.

"Especially the children, old people, and poorly educated people who already watch the most TV will increase their viewing," he said. He predicted that movies, sports, and series would be the "most popular programs in this new world of television."

The Danish Broadcasting Company must realize that it will lose about half its viewers when TV-2 goes on the air, but it will not be threatened by competition from the satellites. "Just as watching programs on video and watching German or Swedish television does not reduce the time people spend watching Danish TV, the satellite programs also will be extra," Erik Nordahl Svendsen said. "Young adults" in the 20 to 40 year age group, who now watch video and German TV, will be the primary viewers of satellite TV in the future. The "living room suite" is not the only group that is developing new plans for replacing the enormous bureaucracy at DR. The government's media commission also has done this in a new report on "an increased selection on Danish TV."

The majority, which represents various political parties, agreed that the structure must be changed in order to separate programming management from financial management. The majority also believed that the day-to-day administration should be made stronger than the political administration.

General director Laurits Bindelov presented these same ideas last Tuesday when he spoke at a conference held by the Telecommunications Society.

He said he was looking forward to competing with TV-2 and said that, "Once the burden of the monopoly has been lifted from DR, there is no reason why we should have a governing board that is fundamentally different from that of the competition. The Swedish Broadcasting Company is a corporation. Perhaps the two competing media in Denmark also could become corporations."

"The media commission has clearly recommended that complaints concerning programming in TV-1 and TV-2 be dealt with and decided by a joint grievance



board independent of the two institutions. That sounds good to me," he said.

Laurits Bindslov feared, however, that TV-2 could be controlled by the newspapers. "If the newspapers take over TV-2, its objectivity may suffer--in terms of both vigilance toward the two stations and criticism of their programming. We already feel the press breathing down our neck. The press can print criticism and attacks, knowing that the DR monopoly cannot answer the charges on television or radio."

#### Professionals

"Today no one in his right mind would create a system such as the one the Danish Broadcasting Company has," said Birte Weiss. "It is obviously the product of a monopoly. I advocate breaking the monopoly and if parliament decides to do so, it also should change the way the channel is run, so that it will be similar to the new TV channel."

Some members of the media commission believe the board of a new Danish Broadcasting Corporation should consist, not of politicians, but of professional, creative business leaders from the newspaper and film industries.

The commission also recommended that the general guidelines for programming and criticism be handled by a programming committee. Some believe that this committee should consist of representatives from listener and viewer organizations. Others believe it should consist of "appointed cultural leaders," just as, until 1974, DR had a number of cultural personalities appointed by the government. These included people such as theater director Preben Harris, Bishop Erik Jensen, writer Lise Sorensen, and painter Mogens Andersen.

9336

CSO: 5500/2533

## BRIEFS

PHONE FIRM ON TECHNOLOGY PLANS--"It is true, it is said that we have too many people and operate in too many places." This was said by director Per Ammitzboll of KTAS (Copenhagen Telephone Company). "We have a conscious policy of promoting people as much as possible. Many times a job can be done as well or better by one superior than by two subordinates." This was said by director Kurt Vestergaard of JTAS (Jutland Telephone Company). "You are both facing a new era in the history of your telephone companies, with investments of several billion kroner for broadband and TV cables. How would you briefly characterize your companies on the threshold of this wonderful new world? The research institute Borsinformation has called Jutland Telephone a 'fine example of a business,' we asked. "I believe those words are a bit too fancy. I would call JTAS a reasonably well-run company. We believe we are keeping up well with customer service, rapid technological advances, and our finances," Kurt Vestergaard said. "KTAS is a rapidly developing company. We are now working on a 5-year plan to increase our service and decentralize our administration, thereby providing greater efficiency and lower prices. At the same time, we are trying to strengthen our financial situation, so we are prepared to invest in new technology, including the broadband network." [By Jens Olaf Jersild] [Excerpts] [Copenhagen BERLINGSKE TIDENDE in Danish 30 Oct 83 Sect II p 3] 9336

CSO: 5500/2533

FEDERAL REPUBLIC OF GERMANY

SIEMENS, SEL TO SUPPLY DIGITAL EXCHANGES TO BUNDESPOST

Duesseldorf VDI NACHRICHTEN in German 11 Nov 83 p 1

[Text] Starting next year, the Bundespost will handle long-distance calls digitally, using two different types of installation. By doing so, it is moving away from its previous practice of using single standardized installations. Exporting this information technology is being made more difficult by purchasing restrictions imposed by each postal service administration. In the words of Minister for Post and Telecommunications Dr Christian Schwarz-Schilling, there will not be a unilateral market opening, if other countries do not reciprocate.

Starting in 1984, the Bundespost will use digital technology in its long-distance telephone exchanges. Minister for Post and Telecommunications Dr Christian Schwarz-Schilling announced his decision in favor of both the system from the Siemens company and the one from Standard Elektrik Lorenz (SEL). It had been preceded by a one-year operational test in the public telephone network, which began in 1982, for which both firms each supplied two exchanges as part of a competition.

Test operation showed that both the ESWD system from Siemens, in whose development the Deutsche Telefonwerke (DeTeWe) and Telefonbau und Normalzeit (TN) had also collaborated, as well as the System 12 from SEL can meet the technical and operational stipulations laid down by the Bundespost.

The Bundespost had made its decision about the introduction of one system or of two systems dependent upon the outcome of competitive price bidding, in which the construction plans for the first few years were specified.

The novel method of presentation used by the Bundespost to compare two exchange systems was followed with close attention abroad. More than 40 delegations from foreign telecommunications administrations visited the Bundespost to gather information about the state of technology and the results that had been achieved. The orders for the demonstration exchanges were not placed until March 1980.

With this modern technology, the German telecommunications industry is now able to maintain its leading position in international markets, according to a statement from the Ministry for Post and Telecommunications. The necessary conditions for ensuring long-term employment in the German telecommunications industry had been created.

In contrast, spokesmen for the telecommunications industry and the Minister for Post and Telecommunications hold different opinions on the subject of opening national markets for importers and exporters. While spokesmen for the telecommunications industry at the Communications Technology Fair Telecom '83 in Geneva were pushing for opening national markets, given that there was genuine equality of opportunity and reciprocity, Minister for Post and Telecommunications Dr Christian Schwarz-Schilling rejected a unilateral opening of the German telecommunications market for the time being. He said that he was not prepared to open the market if this move was not based on reciprocal partnership. He stated that on the international level a "communications race" had begun, which was being led by the United States and Japan and in which--in many areas--some European countries had been somewhat left behind.

9581

CSO: 5500/2550

TELECOMMUNICATIONS INDUSTRY ON FUTURE OF MARKET

Duesseldorf HANDELSBLATT in German 28-29 Oct 83 p 16

[Text] Geneva--In a "position paper of the German telecommunications industry," the 110 association members and Federal Postal Minister Christian Schwarz-Schilling have, on the occasion of Geneva Telecon 83, taken a position on national and worldwide telecommunications trends.

The industry and the postal minister are in agreement that "communications technology continues to be a branch of the economy with above-average growth rates," that the individual national markets, however, are extremely well shielded from foreign competition and that this protection, because of various technical settlements, norms and the like, is tending to increase rather than decline.

The German telecommunications branch, which employs 100,000, has sales reaching DM13.5 to 14 billion, exports 30 percent of its production and imports 15 percent of its requirements, is seeking a liberalization of the telecommunications market and a standardization of the technical and legal regulations.

"The FRG, on the other hand, is not prepared to effect a further opening of its domestic market on its own. We have taken such initiatives for years," declared the federal postal minister. The FRG, however, is prepared, initially in Europe, "to bring about a mutual balanced opening of the telecommunications markets."

Schwarz-Schilling called "difficult" the problems that stand in the way of adequate international links in the information and communications sector. Technical compatibility in Europe, which so far does not exist for most of the new equipment, "is an important step toward a worldwide opening and toward achieving world standards that, in turn, are the prerequisite for further developments and above all for the opening up of export markets."

The countries with their own telecommunications industry are almost all self-suppliers. According to the position paper, that is true for Western Europe and the United States, each with one-third of the world market, and for Japan, with 20 percent of the world market. "Only 15 percent of the volume remains as a free market without a telecommunications industry of its own." Among the countries of the closed markets, the FRG, with 15 percent of the demand, imports "twice as much in relative terms as the United States or France,

substantially more than Great Britain and several times more than Japan, which imports only 1 percent of its production value."

According to the position paper, the annual worldwide growth of the market through 1990 (on a 1980 price basis) can be set provisionally at 4.5 percent. It was about 6 percent during the last decade. Countries such as the United States and Japan with a high degree of development are showing diminishing growth with 4.5 and 5.5 percent, respectively.

A further weakening, in the FRG, for example, from 4.5 percent in the last decade to 3.5 percent in the current decade is to be expected. The greatest growth is in the group of the "other countries," mostly Third World countries--there too, however, at a diminished rate of from 7.0 to 5.2 percent between the two decades.

Worldwide investment of about DM175 billion in this decade (other speakers named investment of DM3 trillion by the end of the century) will come mainly from the profits of "classical telecommunications services" or from public tax resources.

In the FRG, "the proportionately largest volume of the postal service's investment strength of DM14.8 billion will be put into digitalization of telecommunications ties." About 14 telecommunications offices will be reorganized. Beginning in 1984, the Federal Postal Service will install two different digital switching technologies from SEL (System 12) and Siemens (EWS). The digitalization, which according to the postal minister will reach local networks only with some delay, opens up to the user integrated access to the transmission of speech, images and data.

Some day, such connections should cost no more than a telephone hookup does today, says an industry spokesman. Parallel to digitalization is the cabling of the large communications arteries with glass fiber. The postal minister and industry, in view of this development, do not want to grant that the "slow integrated videotex could be the superflop of the century."

9746

CSO: 5500/2531



PHILIPS CALLS FOR EUROPEAN COOPERATION IN TELECOMMUNICATIONS

Rotterdam NRC HANDELSBLAD in Dutch 9 Nov 83 p 9

[Article by correspondent Wynold Verwey: "Philips Argues in Favor of European Cooperation in Telecommunications;" passages enclosed in slantlines printed in boldface]

[Text] Antwerp, 9 Nov 83—The European postal, telegraph and telephone services [PTTs], and the European telecommunications industries must soon achieve an intensive dialogue, if Europe is to preserve an opportunity in telecommunications to give viability to this pioneering industry. Ultimately, one single European PTT should evolve. This plea comes from Dr Wisse Dekker, President of Philips Inc.

Yesterday, Dekker noted that in the "telematics" industry (information and telecommunications systems), still far too many European firms are trying to do business. According to him, it is necessary to achieve far-reaching collaborative frameworks, so that the high cost of research and development can be spread evenly over a large-scale production. Up till now, those efforts are being dispersed too much.

In round figures, the world market in the telematics sector looks like this: nine European firms have 30 percent of the world market, three Japanese firms together have 20 percent, and four American firms have 40 percent. Per average American firm, this comes down to 10 percent of the world market, per Japanese firm to 6.66 percent, while the average European firm can count on no more than 3.33 percent.

/Digital/

Because the telecommunications sector has structurally changed after the transition from electromechanical to digital electronic machinery, the cost of research and development has increased so much that only a larger market share can justify that cost.

Dekker concludes, therefore, that the European firms should collaborate to such an extent that only three or four combinations remain. Only in that case, an answer can be found to the Japanese and American competition. In that context, the Philips top executive says that the ultimate goal should be one single PTT, so that through communal standards and regulations a real common market can be realized.

Dekker delivered his speech yesterday to the Dutch Chamber of Commerce for Belgium and Luxembourg. To his plea, he added the fear that the so-called ESPRIT program could fail because of the too narrow margins for the European Committee. Dekker noted among others that the ministers--who have to give a mandate to the Committee--are politically possibly being motivated by the interests of small firms, while an industrial research program on a European scale can only rest on the shoulders of a few very large firms, because they just have more research potential. This year, Philips is spending seven percent of the estimated annual turnover of 45 billion guilders on research and development.

/Catalyst/

Dekker concluded that collaboration in the field of technology requires an unambiguous distribution of responsibilities between governments and industries. "Government will have to limit itself to playing the role of catalyst by creating the right conditions, and the implementation must be left to industry. Mixing industrial arguments with political ones will lead to dissipation of our most important 'asset' in the research sector: our human expertise," says Dekker.

In the field of consumer electronics, Dekker made a case for "standardization" of the products. Dekker: "Communal standards form the tools for the European industries to achieve the scale which is needed to remain standing up in the competitive fight on the world market."

Examples of the lack of this standardization: all EEC countries have different regulations for mentioning the functions of the marketed equipment, there are different safety requirements, West Germany has special regulations for the sensitivity to interference of electrical equipment, France requires special contact plugs for television sets and Italy prohibits the import of stereo televisions. Conclusion: the EEC is in essence still a "Europe des patries," a Europe of "little fatherlands," says Dekker.

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NATION BECOMING LEADER IN USE OF SATELLITE TELEVISION

Copenhagen BEFLINGSKE TIDENDE in Danish 30 Oct 83 Sect IV p 10

[Article by Michael Rastrup Smith]

[Text] Norway has clearly outdistanced Denmark in the media field. The government permits satellite TV broadcasts and Oslo soon will have a professional local TV station. This policy is in agreement with the spirit of the European Security Conference, according to Norway's culture minister.

"The Norwegian government believes it is obvious that a free country must be permitted to hear foreign radio broadcasts and view foreign television," said Lars Roar Langslet, culture minister of Norway.

"Good evening Europe--this is Satellite Television, London." Every evening at 1900, 200,000 Norwegians can sit in front of their television sets and tune in London.

This is because of a media-friendly nonsocialist government, which 1.5 years ago gave seven cable TV and antenna companies permission to receive commercial TV programs from Satellite Television in London.

Lars Roar Langslet said:

"We granted them permission to receive Satellite Television so we could see how non-Norwegian commercial TV programs would be received by the Norwegian people. There was some criticism at first over the advertising. But this criticism has abated and today there would be a strong reaction if we eliminated this programming.

Satellite Jumped Gun

The TV programs from London jumped the gun before the enormous satellite TV selection that will be available in several years. Satellite Television is broadcast via the earlier European experimental satellite OTS, which will

survive only a short time longer before burning up in the atmosphere.

The second phase of this satellite project has already begun, before the destruction of OTS. On 16 June this year a new joint European satellite, ECS-1, was launched from the South American of French Guiana. Recently it was given final approval by its owner, EUTELSAT, which is an association of European postal and telegraph services, including the Norwegian and Danish services. ECS-1 will be joined by another, ECS-2, next spring.

These two satellites have 12 channels each. One of the channels on ECS-1 is already leased to Satellite Television, which will continue its broadcasts to Norway, Finland, Switzerland, and presumably to several other European countries.

The other channels will be leased to Belgium, the Netherlands, Italy, Switzerland, and Germany. There are plans to run television tests with these channels during the daylight hours.

"We know that several countries are interested in broadcasting their national television broadcasts during the afternoon," the operational chief of EUTELSAT, A. Bartman of Germany, said in Paris. "This is true of France, the Netherlands, Switzerland, and other countries. These countries want to utilize the satellite for TV broadcasts not only to cover domestic areas."

Unlike "real" television satellites, which will be launched in several years, ECS-1 and ECS-2 are communications satellites. They are only one tenth as powerful as real TV satellites. This means that especially sensitive antennas and equipment must be used to receive their signals. Thus, it is not easy for ordinary people to receive these signals, nor is it permitted by international agreements.

This does not mean, however, that it cannot be made legal to watch satellite programs. The Norwegian government has done just that. Culture Minister Lars Roar Langset commented on the situation in Norway.

#### Against International Agreements

"In Norway, the telecommunications Service (P&T) has the concession to receive signals from communications satellites. We have simply given this concession to seven cable companies, who are now on equal footing with the Telecommunications Service. This concession applies to the OTS satellite, which soon will cease broadcasting. But we have prepared a new proposal to parliament that would give us the opportunity to distribute concessions to receive the up to 18 TV channels we are anticipating from the ECS-1 and ECS-2 satellites in the near future." Many have claimed that it would be in conflict with international agreements for Denmark to permit reception from communications satellites. The Norwegian culture minister denied this, however.

"The individual viewer may not receive signals from the communications

satellites, but by granting concessions to companies that receive the signals and distribute them over their networks, we have created a legal situation. In the case of ECS-1 and ECS-2, there is no doubt. These satellites are owned by the European postal and telegraph services. They have decided that the satellites would be used for TV broadcasts when they are not used for other purposes. The postal and telegraph services are hoping for commercial interest. As a result, it would be totally illogical for these same services to forbid the public from watching."

The largest of the seven companies that are permitted to distribute satellite television in Norway is Janco Kabel-TV A/S in Oslo. Its network includes 130,000 households or almost 400,000 viewers. About half of them now can see satellite TV. The administrative director of Janco Kabel-TV A/S is Harald Hansen.

"Most of the households in our network now have six TV channels, but we are rapidly expanding to 20 channels. It is important for us to keep up with the TV selection that will be available in the coming years. Within a short time we will have as many as 18 TV channels from the ECS satellites and we are well underway with testing of local TV," Hansen said.

#### Local TV More Important Than Satellites

Along with satellite TV, local TV is becoming a great success in Oslo. Every afternoon before satellite TV begins, a local TV program about Oslo is broadcast. These programs are made alternately by the city's daily newspapers and a special production company. These broadcasts are of professional quality and have become quite popular.

Culture Minister Lars Roar Langslet said:

"Local TV is far more important to us than satellite TV. It is important for us to develop local television to compete with the satellites. Many already have learned to work with this new medium, in an area where the Norwegian Broadcasting Company has done the least."

Assistant director Jan Lindh of Janco said:

"Local TV is only 1 year old, but it already has proven itself. We started in September of last year. A Gallup poll showed that 5 percent of our cable subscribers saw that program. The following month this figure rose to 17 percent. It rose again to 36 percent in November and 51 percent in December. It has remained at this level ever since."

#### Independent Local TV

But Oslo's local TV has a problem. The manner in which it will be financed has not yet been determined. But a government commission is working on a proposal to solve this delicate problem.

"Local TV must be independent or we will simply build up a new bureaucracy. If it is to be independent, then it must also be independent financially," Culture Minister Langslet said. "Television is an expensive production form, but the commission must decide whether to finance local TV by advertising or by a voluntary license," Langslet said.

With its open media policy, Norway has far outdistanced Denmark and gained valuable experience at the same time. This is especially true in the field of satellites. The culture minister said the following about the open Norwegian policy:

"The Norwegian policy is in total agreement with the guidelines approved by the European Security Conference. Giving the people free access to satellite TV is in total agreement with the open-boundary policy advocated by the conference."

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